

# Joaquín M. Espinosa

Executive Director, Linda Crnic Institute for Down Syndrome

Anna and John J. Sie Endowed Chair in Genomics

Professor of Pharmacology, University of Colorado School of Medicine

Director, The Human Trisome Project

Director, The COVIDome Project

Leader, Administrative and Outreach Core of the NIH INCLUDE Project Data Coordinating Center

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[trisome.org](http://trisome.org)

[covidome.org](http://covidome.org)

[functionalgenomicsfacility.org](http://functionalgenomicsfacility.org)

[includedcc.org](http://includedcc.org)

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## I. EDUCATION

1994           **B.S.** Biology. Universidad Nacional de Mar del Plata, Argentina.

1999           **Ph.D.** Biology. Universidad de Buenos Aires, Argentina.

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## II. ACADEMIC EMPLOYMENT & POSITIONS

1995-1999     **Doctoral Research Associate**

Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)

Instituto de Investigaciones en Biología Molecular e Ingeniería Genética (INGEBI)

Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires.

Advisors: Dr. Mirtha M. Flawiá and Dr. Héctor N. Torres.

1999-2004     **Post-Doctoral Research Associate**

The Salk Institute for Biological Studies, La Jolla, CA, U.S.A.

Advisor: Dr. Beverly Emerson.

2000-2002     **The PEW Charitable Trusts Latin American Fellow.**

2003-2005     **The Leukemia and Lymphoma Society Special Fellow.**

2004-present   **Assistant Professor,**

2010 - **Associate Professor (with tenure),**

2015 - **Associate Professor (Visiting),**

2017- **Professor (Visiting),**

Department of Molecular, Cellular and Developmental Biology

University of Colorado at Boulder (CU-Boulder), CO, U.S.A.

2008-2012     **Instructor**, Cold Spring Harbor Laboratories, course on Eukaryotic Gene Expression.

2009-2015     **Howard Hughes Medical Institute Early Career Scientist.**

2010-2020	<b>Co-Leader</b> , Molecular and Cellular Oncology Program, University of Colorado Cancer Center (UCCC).
2010-present	<b>Director</b> , The Functional Genomics Facility at the University of Colorado.
2015-present	<b>Professor (with tenure)</b> , Department of Pharmacology, University of Colorado School of Medicine (CU-SOM), Aurora, CO, U.S.A.
2015-2017	<b>Associate Director for Science</b> , Linda Crnic Institute for Down Syndrome, CU-SOM.
2017-present	<b>Executive Director, Anna and John J. Sie Endowed Chair in Genomics</b> , Linda Crnic Institute for Down Syndrome, CU-SOM.

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### III. PROFESSIONAL MEMBERSHIPS

2005-present	American Association for Cancer Research (AACR).
2005-present	University of Colorado Cancer Center.
2015-present	Trisomy 21 Research Society.
2018-present	Human Immunology and Immunotherapy Initiative (HI3), CU-SOM.

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### IV. AWARDS

1995	Gold Medal. Universidad Nacional de Mar del Plata. Prize to Outstanding Students.
1996	Gold Medal. Rotary Club International. Prize to students graduating with best grades from Universidad Nacional de Mar del Plata, Argentina.
1995	Pre-Doctoral Fellowship. CONICET, Argentina.
1997	Advanced Pre-Doctoral Fellowship. CONICET, Argentina.
2000	The Pew Charitable Trusts Latin American Fellowship in the Biomedical Sciences.
2003	The Leukemia and Lymphoma Society Special Fellowship.
2005	The March of Dimes Basil O'Connor Award.
2007	The Mortar Board Society Teaching Award.
2009	Howard Hughes Medical Institute, Early Career Scientist Award.
2014	The James P. Holland Memorial Lecture, University of Indiana Bloomington.*
	*Award recognizing faculty from under-represented minorities in the life sciences.
2018	Pueschel-Tjossem Memorial Research Award, National Down Syndrome Congress.

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### V. PUBLICATIONS

#### As Doctoral Candidate:

1. The Nitric Oxide transduction pathway in *Trypanosoma cruzi*.  
Paveto, C., Pereira, C., **Espinosa, J.M.**, Montagna, A., Farber, M., Flawiá, M.M., and Torres, H.N. *The Journal of Biological Chemistry*, 270:16756-16579, **1995**.  
URL: <https://www.sciencedirect.com/science/article/pii/S0021925817468785?via%3Dhub>
2. The control of *Trypanosoma cruzi* epimastigote motility through the nitric oxide pathway.  
Pereira, C., Paveto, C., **Espinosa, J.**, Alonso, G., Flawiá, M.M. and Torres, H. N. *The Journal of Eukaryotic Microbiology*, 44(2):155-156, **1997**.  
URL: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1550-7408.1997.tb05952.x>
3. Factors from *Trypanosoma cruzi* interacting with AP-1 sequences.  
**Espinosa, J.M.**, Martinetto, H., Portal, D., D'Angelo, M., Torres, H. and Flawiá, M.M. *The Journal of Eukaryotic Microbiology*, 46:516-521, **1999**.  
URL: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1550-7408.1999.tb06069.x>
4. mRNA encoding a putative RNA Helicase of the DEAD-box gene family is up-regulated in trypomastigotes of *Trypanosoma cruzi*.  
Diaz Anel, A., Rossi, S.M., **Espinosa, J.M.**, Guida, C., Freitas, F.A., Kornblihtt, A.R., Zingales, B., Flawiá, M.M., and Torres, H. N. *The Journal of Eukaryotic Microbiology*, 47:555-60, **2000**.

URL: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1550-7408.2000.tb00089.x>

5. *Trypanosoma cruzi* TcSRPK, the first protozoan member of the SRPK family, is biochemically and functionally conserved with metazoan SR protein-specific kinases.  
Portal, D., Lobo, G.S., Kadener, S., Prasad, J., **Espinosa, J.M.**, Pereira, C.A., Tang, Z., Lin, R.J., Manley, J.L., Kornblihtt, A.R., Flawiá, M.M. and Torres, H.N.  
*Molecular and Biochemical Parasitology*, 127(1):9-21, 2003.  
URL: <https://www.sciencedirect.com/science/article/pii/S0166685102002992>
6. An early ancestor in the evolution of splicing: a *Trypanosoma cruzi* serine-arginine-rich protein (TcSR) is functional in cis-splicing.  
Portal, D., **Espinosa, J.M.**, Lobo, G.S., Kadener, S., Pereira, C.A., De La Mata, M., Tang, Z., Lin, R.J., Kornblihtt, A.R., Baralle, F.E., Flawiá, M.M. and Torres, H.N.  
*Molecular and Biochemical Parasitology*, 127(1):37-46, 2003.  
URL: <https://www.sciencedirect.com/science/article/pii/S0166685102003018>
7. *Trypanosoma cruzi* Poly Zinc Finger Protein: a novel DNA/RNA-binding CCHC-Zinc Finger Protein.  
**Espinosa, J.M.**, Portal, D., Lobo, G.S., Pereira, C. A., Alonso, G.D., Gómez, E.B., Lan, G.H., Rivera Pomar, R.V., Flawiá, M.M., and Torres, H.N.  
*Molecular and Biochemical Parasitology*, 131(1):35-44, 2003.  
URL: <https://www.sciencedirect.com/science/article/pii/S0166685103001877>

#### **As Post-Doctoral Fellow:**

8. Transcriptional regulation by p53 through intrinsic DNA/chromatin binding and site-directed cofactor recruitment.  
**Espinosa, J.M.** and Emerson, B.M.  
*Molecular Cell*, 8(1):57-69, 2001.  
\* Selected by Cell Press as 'Featured Article'.  
\*\* Selected by Science magazine for its 'Editor's Choice' column.  
\*\*\*Selected by Faculty of 1000 as 'Exceptional'.  
URL: <http://www.cell.com/molecular-cell/retrieve/pii/S1097276501002830>
9. p53 functions through stress- and promoter-specific recruitment of transcription initiation components before and after DNA damage.  
**Espinosa, J.M.**, Verdún, R.E. and Emerson, B.M.  
*Molecular Cell*, 12(4):1015-1027, 2003.  
\* Selected by Faculty of 1000 as 'Must Read'.  
URL: <http://www.cell.com/molecular-cell/retrieve/pii/S1097276503003599>

#### **As Independent Investigator:**

10. *S. pombe* mst2+ encodes a MYST-family histone acetyltransferase that negatively regulates telomere silencing.  
Gómez, E.B., **Espinosa, J.M.**, and Forsburg, S.L.  
*Molecular and Cellular Biology*, 25(20):8887-903, 2005.  
URL: <http://mcb.asm.org/cgi/reprint/25/20/8887>
11. Gene-specific requirements for P-TEFb activity and RNA polymerase II phosphorylation within the p53 transcriptional program.  
Gomes, N.P., Bjerke, G., Llorente, B., Szostek, S.A., Emerson, B.M. and **Espinosa, J.M.**  
*Genes and Development*, 20(5):601-12, 2006.  
\* Selected by *Genes and Development* editors for a special 'Perspective' appearing in *Genes and Development*, 20(6):643-7.  
\*\* Selected by Faculty of 1000 as 'Recommended'.  
URL: <http://genesdev.cshlp.org/content/20/5/601.long>
12. CDK8 is a stimulus-specific positive coregulator of p53 target genes.

- Donner, A.J., Szostek, S.A., Hoover, J.M. and **Espinosa J.M.**  
*Molecular Cell*, 27(1):121-133, **2007**.  
\* Selected by the ISI portal as one of the Top 50 articles in the Cell Cycle field in 2009.  
URL: <http://www.cell.com/molecular-cell/retrieve/pii/S1097276507003279>
13. Doxazolidine induction of apoptosis by a topoisomerase II-independent mechanism.  
Kalet, B.T., McBryde, M., **Espinosa, J.M.** and Koch, T.  
*Journal of Medicinal Chemistry*, 50(18):4493-500, **2007**.  
URL: <http://pubs.acs.org/doi/full/10.1021/jm070569b?cookieSet=1>
14. Stimulus-specific transcriptional regulation within the p53 network.  
Donner, A.J., Hoover, J.M., Szostek, S.A., and **Espinosa J.M.**  
*Cell Cycle*, 6(21):2594-8, **2007**.  
URL: <http://www.landesbioscience.com/journals/cc/article/4893/>
15. RNA polymerase II pauses and associates with pre-mRNA processing factors at both ends of genes.  
Glover-Cutter, K., Kim, S., **Espinosa, J.** and Bentley, D.L.  
*Nature Structural and Molecular Biology*, 15(1):71-8, **2008**.  
\* Selected by Faculty of 1000 as 'Recommended'.  
URL: <http://www.nature.com/nsmb/journal/v15/n1/full/nsmb1352.html>
16. Mechanisms of regulatory diversity within the p53 transcriptional network (*invited review*).  
**Espinosa, J.M.**  
*Oncogene*, 27(29):4013-23, **2008**.  
URL: <http://www.nature.com/onc/journal/v27/n29/full/onc200837a.html>
17. Cooperative activity of cdk8 and GCN5L within Mediator directs tandem phosphoacetylation of histone H3.  
Meyer, K.D., Donner, A.J., Knuesel, M.T., York, A.G., **Espinosa J.M.**, Taatjes, A.D.  
*EMBO Journal*, 27(10):1447-57, **2008**.  
URL: <http://www.nature.com/emboj/journal/v27/n10/full/emboj200878a.html>
18. BH3 activation overcomes Hdmx suppression of apoptosis and co-operates with Nutlin to induce cell death.  
Wade, M., Rodewald, L.W., **Espinosa, J.M.** and Wahl, G.M.  
*Cell Cycle*, 7(13): 1973-82, **2008**.  
URL: <http://www.landesbioscience.com/journals/6/article/6072/>
19. Multiple p53-independent gene silencing mechanisms define the cellular response to p53 activation.  
Paris, R., Henry, R.E., Stephens, S.J., McBryde, M. and **Espinosa, J.M.**  
*Cell Cycle* 7(15):2427-33, **2008**.  
URL: <http://www.landesbioscience.com/journals/cc/article/6420/>
20. Histone H2B ubiquitination: the cancer connection (*invited review*).  
**Espinosa, J.M.**  
*Genes and Development*, 22(20):2743-9, **2008**.  
URL: <http://genesdev.cshlp.org/content/22/20/2743.long>
21. The human CDK8 subcomplex is a histone kinase that requires Med12 for activity and can function independently of Mediator.  
Knuesel M.T., Meyer K.D., Donner A.J., **Espinosa J.M.**, Taatjes D.J.  
*Molecular and Cellular Biology*, 29(3):650-61, **2009**.  
URL: <http://mcb.asm.org/cgi/content/full/29/3/650?view=long&pmid=19047373>
22. A role for Chk1 in blocking transcriptional elongation of p21 RNA during the S phase checkpoint.  
Beckerman, R., Donner, A.J., Mattia, M., Peart, M.J., Manley, J.M., **Espinosa, J.M.** and Prives, C.  
*Genes and Development*, 23(11):1364-77, **2009**.  
URL: <http://genesdev.cshlp.org/content/23/11/1364.long>

23. Differential regulation of p53 target genes: it's (core promoter) elementary (*invited review*).  
**Gomes, N.P. and Espinosa, J.M.**  
*Genes and Development*, 24(2):111-4, **2010**.  
URL: <http://genesdev.cshlp.org/content/24/2/111.long>
24. CDK8 is a positive regulator of transcriptional elongation within the serum response network.  
Donner, A.J., Ebmeier, CC, Taatjes, D.J. and **Espinosa, J.M.**  
*Nature Structural and Molecular Biology*, 17(2):194-201, **2010**.  
\* Selected for the cover of the February 2010 issue of Nature SMB.  
\*\* Selected by Faculty of 1000 as 'Recommended'.  
URL: <http://www.nature.com/nsmb/journal/v17/n2/full/nsmb.1752.html>
25. The histone deacetylase Sirt6 regulates glucose homeostasis via HIF1a.  
Zhong, L., D'Urso, A., Toiber, D., Sebastian, C., Henry, R.E., Vadysirisack, D.D., Guimaraes, A., Marinelli, B., Wikstrom, J.D., Nir, T., Clish, C.B., Vaitheesvaran, B., Iliopoulos, O., Kurland, I., Dor, Y., Weissleder, R., Shirihi, O.S., Ellisen, L.W., **Espinosa, J.M.** and Mostoslavsky, R.  
*Cell*, 140(2):280-293, **2010**.  
\* Selected by Faculty of 1000 as 'Must Read'.  
URL: <http://www.cell.com/retrieve/pii/S0092867409016274>
26. Gene-specific repression of the p53 target gene PUMA via intragenic CTCF-Cohesin binding.  
**Gomes, N.P. and Espinosa, J.M.**  
*Genes and Development*, 24(10): 1022-34, **2010**.  
\* Selected by Nature Cancer Reviews for its 'Highlight' section.  
\*\* Selected by Faculty of 1000 as 'Recommended'.  
URL: <http://genesdev.cshlp.org/content/24/10/1022.long>
27. CDK8: a positive regulator of transcription (*invited review*).  
Galbraith, M.D., Donner, A.J. and **Espinosa, J.M.**  
*Transcription*, 1(1):4-12, **2010**.  
URL: <http://www.landesbioscience.com/journals/transcription/article/12373/>
28. Disparate chromatin landscapes and kinetics of inactivation impact on differential regulation of p53 target genes.  
**Gomes, N.P. and Espinosa, J.M.**  
*Cell Cycle*, 9(17):3428-3437, **2010**.  
URL: <http://www.landesbioscience.com/journals/cc/article/12998/>
29. The meaning of pausing (*invited review*).  
**Espinosa, J.M.**  
*Molecular Cell*, 40(4):507-8, **2010**.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/21095581>
30. Lessons on transcriptional control from the serum response network (*invited review*).  
Galbraith, M.D. and **Espinosa, J.M.**  
*Current Opinions in Genetics and Development*, 21(2):160-6, **2011**.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/21316215>
31. A DR4:tBID axis drives the p53 apoptotic response by promoting oligomerisation of poised BAX.  
Henry, R.E., Andrysk, Z., Paris, R., Galbraith, M.D. and **Espinosa, J.M.**  
*EMBO Journal*, 31(5):1266-78, **2012**.  
URL: <http://www.nature.com/emboj/journal/vaop/ncurrent/full/emboj2011498a.html>
32. Get Back TFIIF, Don't Let Me Gdown1 (*invited review*).  
**Espinosa, J.M.**  
*Molecular Cell*, 45(1):3-5, **2012**.  
URL: <http://www.cell.com/molecular-cell/retrieve/pii/S1097276511009890>
33. The p53 circuit board (*invited review*).

- Sullivan, K.D., Gallant-Behm, C.L., Henry, R.E., Fraikin, J.L. and **Espinosa, J.M.**  
*Biochimica et Biophysica Acta Reviews in Cancer*, 1825(2):229-44, 2012.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/22333261>
34. ATM and MET are synthetic lethal with non-genotoxic activation of p53.  
Sullivan, K.D., Padilla-Just, N., Henry, R.E., Porter, C.C., Kim, J., Tentler, J.J., Eckhardt, S.G., Tan, A.C., DeGregori, J. and **Espinosa, J.M.**  
*Nature Chemical Biology*, 8(7):646-54, 2012.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/22660439>  
\*Selected by the HHMI bulletin for a special story entitled 'Cancer's Dead End'.
35. CBX3 regulates efficient RNA processing genome-wide.  
Smallwood, A., Hong, G.C., Jin, F., Henry, R.E., **Espinosa, J.M.** and Ren, B.  
*Genome Research*, 22(8):1426-36, 2012.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/22684280>
36.  $\Delta$ Np63 $\alpha$  represses anti-proliferative genes via H2A.Z deposition.  
Gallant-Behm, C.L., Ramsey, M.R., Bensard, C.L., Nojek, I., Tran, J., Liu, M., Ellisen, L.W. and **Espinosa, J.M.**  
*Genes and Development*, 26(20):2325-36, 2012.  
\*Selected by the Cancer Discovery AACR publication for its Cancer News section.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/23019126>
37. The impact of post-transcriptional regulation in the p53 network (*invited review*).  
Freeman, J.A. and **Espinosa, J.M.**  
*Briefings in Functional Genomics*, 12(1):46-57, 2013.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/23242178>
38.  $\Delta$ Np63 $\alpha$  utilizes multiple mechanisms to repress transcription in squamous cell carcinoma cells.  
Gallant-Behm, C.L. and **Espinosa, J.M.**  
*Cell Cycle*, 12(3): 409-16, 2013.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/23324337>
39. How does  $\Delta$ Np63 $\alpha$  drive cancer? (*invited review*).  
Gallant-Behm, C.L. and **Espinosa, J.M.**  
*Epigenomics*, 5(1):5-7, 2013.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/23414311>
40. A genetic screen identifies TCF3/E2A and TRIAP1 as pathway-specific regulators of the cellular response to p53 activation.  
Andrysik, Z., Kim, J., Tan, A.C. and **Espinosa, J.M.**  
*Cell Reports*, 3:1-9, 2013.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/23684607>
41. HIF1A employs CDK8-Mediator to stimulate RNAPII elongation in response to hypoxia.  
Galbraith, M.D., Allen, M.A., Bensard, C.L., Wang, X., Schwinn, M.K., Qin, B., Long, H.W., Daniels, D.L., Hahn, W.C., Dowell, R.D. and **Espinosa, J.M.**  
*Cell*, 153(6):1327-39, 2013.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/23746844>
42. Tumor suppression by p53: is apoptosis important or not? (*invited review*).  
Mellert, H. and **Espinosa, J.M.**  
*Cell Reports*, 3(5):1335-6, 2013.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/23726020>
43. Mutual exclusivity of MED12/MED12L, MED13/13L, and CDK8/19 paralogs revealed within the CDK8-Mediator kinase module.

- Daniels, D.L., Ford, M., Schwinn, M.K., Benink, H., Galbraith, M.D., Amunugama, R., Jones, R., Allen., D, Okazaki, N., Yamakawa, H., Miki, F., Nagase, T., **Espinosa, J.M.** and Urh, M. *Journal of Proteomics and Bioinformatics*, S2:004, **2013**.  
URL: <http://dx.doi.org/10.4172/jpb.S2-004>
44. ERK phosphorylation of MED14 in promoter complexes during mitogen-induced gene activation by Elk-1.  
Galbraith, M.D., Saxton, J., Li, L., Shelton, S., Zhang, H., **Espinosa, J.M.** and Shaw, P.E. *Nucleic Acid Research*, 41(22):10241-53, **2013**.  
URL: <http://nar.oxfordjournals.org/content/41/22/10241.long>
45. Inhibition of telomerase recruitment and cancer cell death.  
Nakashima, M., Nandakumar, J., Sullivan, K.D., **Espinosa, J.M.** and Cech, T.R. *Journal of Biological Chemistry*, 288(46):33171-80, **2013**.  
URL: <http://www.jbc.org/content/288/46/33171.long>
46. Back to bases: how a nucleotide biosynthetic enzyme controls p53 activation (*invited review*).  
Guarnieri, A. L. and **Espinosa, J.M.** *Molecular Cell*, 53(3):365-367, **2014**.  
URL: [http://www.cell.com/molecular-cell/abstract/S1097-2765\(14\)00086-0](http://www.cell.com/molecular-cell/abstract/S1097-2765(14)00086-0)
47. Transcriptional regulation by hypoxia inducible factors (*invited review*).  
Dengler, V.L., Galbraith, M. and **Espinosa, J.M.** *Critical Reviews in Biochemistry and Molecular Biology* 49(1):1-15, **2014**.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/24099156>
48. Autophagy controls the kinetics and extent of mitochondrial apoptosis by regulating PUMA levels.  
Thorburn, J., Andrysiak, Z., Staskiewicz, L., Gump, J., Maycotte, P., Oberst, A., Green, D.R., **Espinosa, J.M.**, Thorburn, A. *Cell Reports*, 7(1):45-52, **2014**.  
URL: <http://www.sciencedirect.com/science/article/pii/S2211124714001508>
49. Global analysis of p53-regulated transcription identifies its direct targets and unexpected regulatory mechanisms.  
Allen, M.A., Andrysiak, Z., Dengler, V.L., Mellert, H.S., Guarnieri, A., Freeman, J.A., Sullivan, K.D., Galbraith, M.D., Luo, X., Kraus, W.L., Dowell, R.D. and **Espinosa, J.M.** *eLIFE*, 3:e02200, **2014**.  
URL: <http://elifesciences.org/content/3/e02200>
50. ATM regulates cell fate choice upon p53 activation by modulating mitochondrial turnover and ROS levels.  
Sullivan, K.D., Palaniappan, V.V. and **Espinosa, J.M.** *Cell Cycle*, 14(1):56-63, **2015**.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/25483068>
51. p53 family members regulate phenotypic response to Aurora Kinase A inhibition in triple-negative breast cancer.  
Diamond, J.R., Eckhardt, S.G., Ionkina, A., Tan, A.C., Newton, T.P., Pitts, T.M., Glogowska, M., Kabos, P., Sartorius, C., Sullivan, K.D., **Espinosa, J.M.**, Tentler, J.J. *Molecular Cancer Therapies*, 14(5):1117-29, **2015**.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/25758253>
52. Human ACAP2 is a homolog of *C. elegans* CNT-1 that promotes apoptosis in cancer cells.  
Sullivan, K.D., Nakagawa, A., Xue, D., **Espinosa JM**. *Cell Cycle*, 14(12):1771-8, **2015**.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/25853217>
53. A signature for success (*invited review*).  
Sullivan, K.D., and **Espinosa JM**.

- eLIFE*, 4:e08773, 2015.  
URL: <http://elifesciences.org/content/4/e08773>
54. The crusade against mutant p53: does the COMPASS point to the Holy Grail? (*invited review*).  
Abraham, C. and **Espinosa JM**.  
*Cancer Cell*, 28(4):407-8, 2015.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/26461087>
55. Role of the host restriction factor APOBEC3 on papillomavirus evolution.  
Warren, C.J., van Doorslaer, K., Pandey, A., **Espinosa J.M.** and Pyeon, D.  
*Virus Evolution*, 1(1):vev015, 2015.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/27570633>
56. The Six1 oncprotein downregulates p53 via concomitant regulation of RPL26 and microRNA-27a-3p.  
Towers, C.G., Guarnieri, A.L., Micalizzi, D.S., Harrell, J.C., Gillen, A.E., Kim, K., Wang, C.A., Oliphant, M.U.J., Drasin, D.J., Guney, M.A., Kabos, P., Sartorius, C.A., Tan, A.C., Perou, C.M., **Espinosa, J.M.** and Ford, H.L.  
*Nature Communications*, 6:10077, 2015.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/26687066>
57. NPM and BRG1 mediate transcriptional resistance to retinoic acid in acute promyelocytic leukemia.  
Nichol, J.N., Galbraith, M.D., **Espinosa, J.M.** and Miller, W.H.  
*Cell Reports*, 14(12):2938-49, 2016.  
URL: <http://www.cell.com/cell-reports/fulltext/S2211-1247%2816%2930209-1>
58. Revisiting lncRNAs: how do you know yours is not an eRNA? (*invited review*).  
**Espinosa, J.M.**  
*Molecular Cell*, 62(1):1-2, 2016.  
URL: <http://www.ncbi.nlm.nih.gov/pubmed/27058782>
59. TIP60 is a conserved coactivator of HIF1A.  
Perez-Perri, J.I., Dengler, V.L., Audetat, A.K., Pandey, A., Bonner, E.A., Urh, M., Mendez, J., Daniels, D.L., Wappner, P., Galbraith, M.D., and **Espinosa, J.M.**  
*Cell Reports*, 16(1):37-47, 2016.  
URL: <http://www.sciencedirect.com/science/article/pii/S2211124716306957>
60. The NSL chromatin-modifying complex subunit KANSL2 regulates cancer stem-like properties in glioblastoma that contribute to tumorigenesis.  
Ferreira-Solari, N., Belforte, F.S., Canedo, L., Videla-Richardson, G.A., **Espinosa, J.M.**, Rossi, M., Serna, E., Riuvadets, M.A., Martinetto, H., Sevlever, G. and Perez-Castro, C.  
*Cancer Research*, 76(18):5383-94, 2016.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/27406830>
61. Trisomy 21 consistently activates the interferon response.  
Sullivan, K.D., Lewis, H.C., Hill, A.A., Pandey, A., Jackson, L.P., Cabral, J.M., Smith, K.P., Liggett, L.A., Gomez, E.B., Galbraith, M.D., DeGregori, J., and **Espinosa, J.M.**  
*eLIFE*, e16220, 2016.  
\* Selected by eLife for subsequent Insight article.  
URL: <https://elifesciences.org/content/5/e16220>
62. Multivalent chromatin engagement and inter-domain crosstalk regulate MORC3 ATPase.  
Andrews, F.H., Tong, Q., Sullivan, K.D., Cornett, E.M., Zhang, Y., Ali, M., Ahn, J., Pandey, A., Guo, A.H., Strahl, B.D., Costello, J.C., **Espinosa, J.M.**, Rothbart, S.B., and Kutateladze, T.G.  
*Cell Reports*, 16(12):3195-3207, 2016.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/27653685>
63. Therapeutic targeting of MLL degradation pathways in MLL-rearranged leukemia.  
Liang, K., Volk, A.G., Haug, J.S., Marshall, S.A., Woodfin, A.R., Bartom, E.T., Gilmore, J.M.,

- Florens, L., Washburn, M.P., Sullivan, K.D., **Espinosa, J.M.**, Cannova, J., Zhang, J., Smith, E.R., Crispino, J.D., Shilatifard, A.  
*Cell*, 168(1-2):59-72, **2017**.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/28065413>
64. A kinase independent role for CDK19 in p53 response.  
Audetat, K.A., Galbraith, M.D., Odell, A.T., Lee, T., Pandey, A., **Espinosa, J.M.**, Dowell, R.D. and Taatjes, D.J.  
*Molecular and Cellular Biology*, 37(13), pii e00626-116, **2017**.  
URL: <http://mcb.asm.org/content/early/2017/04/12/MCB.00626-16.long>
65. On the origins of lncRNAs: missing link found (*invited review*).  
**Espinosa, J.M.**  
*Trends in Genetics*, 33(10):660-662, **2017**.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/28778681>
66. Identification of a core TP53 transcriptional program with highly distributed tumor suppressive activity.  
Andrysik, Z., Galbraith, M.D., Guarnieri, A.L., Zaccara, S., Sullivan, K.D., Pandey, A., MacBeth, M., Inga, A. and **Espinosa, J.M.**  
*Genome Research*, 27(10):1645-1657, **2017**.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/28904012>
67. CDK8 kinase activity promotes glycolysis.  
Galbraith, M.D., Andrysik, Z., Pandey, A., Hoh, M., Bonner, E.A., Hill, A., Sullivan, K.D. and **Espinosa, J.M.**  
*Cell Reports*, 21, 1495–1506, **2017**.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/29117556>
68. Trisomy 21 causes changes in the circulating proteome indicative of chronic autoinflammation.  
Sullivan, K.D., Evans, D., Pandey, A., Hraha, T.H., Smith, K.P., Markham, N., Rachubinski, A.L., Wolter-Warmerdam, K., Hickey, F., **Espinosa, J.M.\*** and Blumenthal, T.\*  
*Scientific Reports*, 7(1):14818, **2017**.  
\* Co-corresponding authors.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/29093484>
69. Red blood cell metabolism in Down syndrome: hints on metabolic derangements in aging.  
Culp-Hill, R., Zheng, C., Reisz, J.A., Smith, K., Rachubinski, A., Nemkov, T., Butcher, E., Granrath, R., Hansen, K.C., **Espinosa J.M.**, D'Alessandro, A.  
*Blood Advances*, 1(27):2776-2780, **2017**.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/29296929>
70. Exosomal biomarkers in Down syndrome and Alzheimer's disease (*invited review*).  
Hamlett, E., Ledreux, A., Potter, H., Chial, H., **Espinosa, J.M.**, Bettcher, B.M. and Granholm, A.C.  
*Free Radical Biology and Medicine*, 114:110-121, **2018**.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/28882786>
71. Mechanisms of transcriptional regulation by p53 (*invited review*).  
Sullivan, K.D., Galbraith, M.D., Andrysik, Z., and **Espinosa, J.M.**  
*Cell Death and Differentiation*, 25(1):133-143, **2018**.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/29125602>
72. Autophagy inhibition mediates apoptosis sensitization in cancer therapy by relieving FOXO3a turnover.  
Fitzwalter, B.E., Towers, C.G., Sullivan, K.D., Andrysik, Z., Hoh, M., Ludwig, M., O'Prey, J., Ryan, K.M., **Espinosa, J.M.**, Morgan, M.J., Thorburn, A.  
*Developmental Cell*, 44(5):555-565, **2018**.  
URL: <https://www.ncbi.nlm.nih.gov/pubmed/29533771>

73. The miR-106b-25 cluster mediates breast tumor initiation through activation of NOTCH via direct repression of NEDD4L.  
 Guarneri, A.L., Towers, C.G., Drasin, D.J., Oliphant, M.U.J., Hotz, T., Vartuli, R.L., Linklater, E., Pandey, A., **Espinosa, J.M.**, and Ford, H.L.  
*Oncogene*, 37(28):3879-3893, **2018**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/29662198>
74. Adaptive changes in global gene expression profile of lung carcinoma A549 cells acutely exposed to distinct types of AhR ligands.  
 Procházková, J., Strapáčová, S., Svržková, L., Andrysík, Z., Hýžďalová, M., Hrubá, E., Pěnčíková, K., Líbalová, H., Topinka, J., Kléma, J., **Espinosa, J.M.**, Vondráček, J., Machala, M.  
*Toxicology Letters*, 292:162-174, **2018**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/29704546>
75. Zinc Finger Protein 521 regulates early hematopoiesis through cell extrinsic mechanisms in the bone marrow microenvironment.  
 Fleenor, C.J., Arends, T., Lei, H., Ashberg, J., Okuyama, K., Kuruvilla, J., Cristobal, S., Rabe, J.L., Pandey, A., Danhorn, T., Straign, D., **Espinosa, J.M.**, Warming, S., Pietras, E.M., Sigvardson, M., Hagman, J.R.  
*Molecular and Cellular Biology*, 38(17) pii: e00603-17, **2018**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/29915154>
76. Trisomy 21 represses cilia formation and function.  
 Galati, D.F., Sullivan, K.D., Pham, A.T., Pazour, G.J., **Espinosa, J.M.** and Pearson, C.G.  
*Developmental Cell*, 46(5):641-650, **2018**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/30100262>
77.  $\Delta$ Np63 $\alpha$  suppresses TGFB2 expression and RHOA activity to drive cell proliferation in squamous cell carcinomas.  
 Abraham, C.G., Ludwig, M.P., Andrysik, Z., Pandey, A., Joshi, M., Galbraith, M.D., Sullivan, K.D., and **Espinosa, J.M.**  
*Cell Reports*, 24(12):3224-3236, **2018**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/30232004>
78. Transcriptional CDKs in the spotlight (*editorial*).  
**Espinosa, J.M.**  
*Transcription*, 10(2):45-46, **2019**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/30946639>
79. Therapeutic targeting of transcriptional cyclin-dependent kinases (*invited review*).  
 Galbraith, M.D., Bender, H., and **Espinosa, J.M.**  
*Transcription*, 10(2):118-136, **2019**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/30409083>
80. SIX2 mediates late stage metastasis via direct regulation of SOX2 and induction of a cancer stem cell program.  
 Oliphant, M.U.J., Vincent, M.Y., Galbraith, M.D., Pandey, A., Zaberezhnyy, V., Rudra, P., Johnson, K.R., Costello, J.C., Ghosh, D., DeGregori, J., **Espinosa, J.M.**, and Ford, H.L.  
*Cancer Research*, 79(4):720-734, **2019**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/30606720>
81. Janus kinase inhibition in Down syndrome: 2 cases of therapeutic benefit for alopecia areata.  
 Rachubinski, A. L., Enriquez-Estrada, B., Norris, D.M., Dunnick, C.A., Boldrick, J.C. and **Espinosa, J.M.**  
*Journal of the American Academy of Dermatology Case Reports*, 5(4):365-367, **2019**.  
 URL: [https://www.jaadcasereports.org/article/S2352-5126\(19\)30059-1/fulltext](https://www.jaadcasereports.org/article/S2352-5126(19)30059-1/fulltext)

82. Multi-omic approaches identify metabolic and autophagy regulators important in ovarian cancer dissemination.  
 Wheeler, L.J., Watson, Z.L., Qamar L., Yamamoto, T.M., Sawyer, B.T., Sullivan, K.D., Khanal, S., Joshi, M., Ferchaud-Roucher, V., Smith, H., Vanderlinden, L.A., Brubaker, S.W., Caino, C.M., Kim, H., **Espinosa, J.M.**, Richer, J.K., and Bitler, B.J.  
*iScience*, 19:474-491, **2019**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/31437751>
83. Transcriptional responses to IFN- $\gamma$  require Mediator kinase-dependent pause release and mechanistically distinct functions of CDK8 and CDK19.  
 Steinparzer, I., Sedlyarov, V., Rubin, J.D., Eismayr, K., Galbraith, M.D., Levandowski, C.B., Vcelkova, T., Sneezum, L., Wascher, F., Amman, F., Kleinova, R., Bender, H., Andrysik, Z., **Espinosa, J.M.**, Superti-Furga, G., Dowell, R.D., Taatjes, D.J., and Kovarik, P.  
*Molecular Cell*, 76(3):485-499, **2019**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/31495563>
84. Trisomy 21 activates the kynurenine pathway via increased dosage of interferon receptors.  
 Powers, R.K., Culp-Hill, R., Ludwig, M.P., Smith, K.P., Waugh, K.A., Minter, R., Tuttle, K.D., Lewis, H., Rachubinski, A.L., Granrath, R.E., Wilkerson, R.B., Kahn, D.E., Joshi, M., D'Alessandro, A., Costello, J.C., Sullivan, K.D\*, and **Espinosa, J.M\***.  
 \*Co-corresponding authors.  
*Nature Communications*, 10(1):4766, **2019**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/31628327>
85. Trisomy 21 dysregulates T cell lineages toward an autoimmunity-prone state associated with interferon hyperactivity.  
 Araya, P., Waugh, K.A., Sullivan, K.D., Núñez, N.G., Roselli, E., Smith, K.P., Granrath, R.E., Rachubinski, A.L., Enriquez Estrada B., Butcher E.T., Minter, R., Tuttle, K.D., Bruno, T.C., Maccioni, M., and **Espinosa, J.M.**  
*Proceedings of the National Academy of Sciences*, 116(48):24231-24241, **2019**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/31699819>
86. Mass cytometry reveals global immune dysregulation with multi-lineage hypersensitivity to Type I Interferon in Down syndrome.  
 Waugh, K.A., Araya, P., Pandey, A., Jordan, K.R., Smith, K.P., Minter, R., Granrath, R.E., Khanal, S., Butcher, E.T., Enriquez-Estrada, B., Rachubinski, A.L., MacWilliams, J.A., Minter, R., Dimasi, T., Colvin, K.L., Baturin, D., Pham, A.T., Galbraith, M.D., Bartsch, K.W., Yeager, M.E., Porter, C.C., Sullivan, K.D., Hsieh, E.W., and **Espinosa, J.M.**  
*Cell Reports*, 29(7):1893-1908, **2019**.  
 URL: <https://www.ncbi.nlm.nih.gov/pubmed/31722205>
87. Transcriptional control by enhancers: working remotely for improved performance (*editorial*).  
**Espinosa, J.M.**  
*Transcription*, 11(1):1:2, **2020**.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/32054432/>
88. Nutlin-induced apoptosis is specified by a translation program regulated by PCBP2 and DHX30.  
 Rizzotto, D., Zaccara, S., Rossi, A., Galbraith, M.D., Andrysik, Z., Pandey, A., Sullivan, K.D., Quattrone, A., **Espinosa, J.M.**, Dassi, E., Inga, A.  
*Cell Reports*, 30(13):4355-4369, **2020**.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/32234473/>
89. Down syndrome and COVID-19, a perfect storm? (*peer-reviewed perspective*).  
**Espinosa, J.M.**  
*Cell Reports Medicine*, 1(2):100019, **2020**.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/32501455/>

90. Further understanding the connection between Alzheimer's disease and Down syndrome (*invited review*).  
 Snyder, H.M., Bain, L.J., Brickman, A.M., Carrillo, M.C., Esbensen, A.J., **Espinosa, J.M.**, Fernandez, F., Fortea, J., Hartley, S.L., Head, E., Hendrix, J., Kishnani, P.S., Lai, F., Lao, P., Lemere, C., Mobley, W., Mufson, E.J., Potter, H., Zaman, S.H., Granholm, A.C., Rosas, H.D., Strydom, A., Whitten, M.S., Rafii, M.S.  
*Alzheimers Dementia*, 16(7):1065-1077, **2020**.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/32544310/>
91. Tumoral soft tissue calcification in Down syndrome: association with heterozygous germline SAMD9 mutation and hyperactive type I interferon signaling.  
 Deigendesch, N., Hirsiger, J.R., Bigler, M.B., Ghosh, A., Harder, D., Jauch, A., **Espinosa, J.M.**, Recher, M., Navarini, A., Daikeler, T., Berger, C.T.  
*Rheumatology (Oxford)*, 59(11):e102-e104, **2020**.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/32594144/>
92. JAK1 inhibition blocks lethal immune hypersensitivity in a mouse model of Down syndrome.  
 Tuttle, K.D., Waugh, K.A., Araya, P., Minter, R., Orlicky, D.J., Ludwig, M., Andryszik, Z., Burchill, M.A., Tamburini, B.A.J., Sempeck, C., Smith, K., Granrath, R., Tracy, D., Baxter, J., **Espinosa, J.M.\*** and Sullivan, K.D.\*  
 \*Co-corresponding authors.  
*Cell Reports*, 33, 108407, **2020**.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/33207208/>
93. Down syndrome patients with COVID-19 pneumonia: a high-risk category for unfavourable outcome.  
 Vita, S., Di Bari, V., Corpolongo, A., Goletti, D., **Espinosa, J.**, Petracca, S., Palmieri, F., Nicastri, E., on behalf of INMI COVID-19 study groups.  
*International Journal of Infectious Diseases*, 103, 607-610, **2021**.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/33271290/>
94. Precocious clonal hematopoiesis in Down syndrome is accompanied by immune dysregulation.  
 Liggett, L.A., Galbraith, M.D. Smith, K.P., Sullivan, K.D. Granrath, R.E., Enriquez-Estrada, B., Kinning, K.T., Shaw, J.R., Rachubinski, A.L., **Espinosa, J.M.\*** & DeGregori, J.\*  
 \*Co-corresponding authors.  
*Blood Advances*, 5(7):1791-1796, **2021**.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/33787858/>
95. JAK inhibition for treatment of psoriatic arthritis in Down syndrome.  
 Pham, A.T., Rachubinski, A.L., Enriquez-Estrada, B., Worek, K., Griffith, M., **Espinosa, J.M.**  
*Rheumatology (Oxford)*, keab203, **2021**.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/33630031/>
96. Multi-omics analysis reveals contextual tumor suppressive and oncogenic gene modules within the acute hypoxic response.  
 Andryzik, A., Bender, H., Galbraith, M.D.\*., **Espinosa, J.M.\***  
*Nature Communications*, 12(1):1375, **2021**.  
 \*Co-corresponding authors.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/33654095/>
97. USP19 modulates cancer cell migration and invasion and acts as a novel prognostic marker in patients with early breast cancer.  
 Rossi F.A., Enriqué Steinberg, J.H., Calvo Roitberg, E.H., Joshi, M.U., Pandey, A., Abba, M.C., Dufrusine, B., Buglioni, S., De Laurenzi, V., Sala, G., Lattanzio, R., **Espinosa J.M.**, Rossi, M.  
*Oncogenesis*, 10(3):28, **2021**.  
 URL: <https://pubmed.ncbi.nlm.nih.gov/33714979/>
98. Seroconversion stages COVID19 into distinct pathophysiological states.

- Galbraith, M.D., Kinning, K.T., Sullivan, K.D., Baxter, R., Araya, P., Jordan, K.R., Russell, S., Smith, K.P., Granrath, R.E., Shaw, J.R., Dzieciatkowska, M., Ghosh, T, Monte, A.A., D'Alessandro, A., Hansen, K.C., Bennett, T.D., Hsieh, E.W., **Espinosa, J.M.**  
*Elife*, 10:e65508, **2021**.  
URL: <https://pubmed.ncbi.nlm.nih.gov/33724185/>
99. Global analyses to identify direct transcriptional targets of p53 (*book chapter*).  
Galbraith, M.D., Andrysik, Z., Sullivan, K.D., and **Espinosa, J.M.**  
*Methods Mol Biol*, 2267:19-56, **2021**.  
URL: <https://pubmed.ncbi.nlm.nih.gov/33786783/>
100. HERC1 regulates breast cancer cells migration and invasion.  
Rossi, F.A., Calvo Roitberg, E.H., Enriqué Steinberg, J.H., Joshi, M.U., **Espinosa, J.M.**, Rossi, M.  
*Cancers (Basel)*, 13(6):1309, **2021**.  
URL: <https://pubmed.ncbi.nlm.nih.gov/33804079/>
101. The COVIDome Explorer Researcher Portal.  
Sullivan, K.D., Galbraith, M.D., Kinning, K.T., Bartsch, K., Levinsky, N., Araya, P., Smith, K.P., Granrath, R.E., Shaw, J.R., Baxter, R., Jordan, K.R., Russell, S., Dzieciatkowska, M., Reisz, J.A., Gamboni, F., Cendali, F., Ghosh, T., Monte, A.A., Bennett, T.D., Miller, M.G., Hsieh, E.W.Y., D'Alessandro, A., Hansen, K.C., **Espinosa, J.M.**  
*Cell Reports*, 36(7):109527. **2021**.  
URL: <https://pubmed.ncbi.nlm.nih.gov/34348131/>
102. Sonic Hedgehog pathway modulation normalizes expression of Olig2 in rostrally patterned NPCs with trisomy 21.  
Klein, J.A., Li, Z., Rampam, S., Cardini, J., Ayoub, A., Shaw, P., Rachubinski, A.L., **Espinosa, J.M.**, Zeldich, E., and Haydar, T.F.  
*Frontiers in Cellular Neurosciences*, 15:794675, **2022**.  
URL: <https://pubmed.ncbi.nlm.nih.gov/35058753/>
103. Specialized interferon action in COVID19.  
Galbraith, M.D., Kinning, K.T., Sullivan, K.D., Araya, P., Smith, K.P., Granrath, R.E., Shaw, J.R., Baxter, R., Jordan, K.R., Russell, S., Dzieciatkowska, M., Reisz, J.A., Gamboni, F., Cendali, F., Ghosh, T., Guo, K., Wilson, C.C., Santiago, M.L., Monte, A.A., Bennett, T.D., Hansen, K.C., Hsieh, E.W.Y., D'Alessandro, A., **Espinosa, J.M.**  
*Proceedings of the National Academy of Sciences*, 119(11):e2116730119, **2022**.  
URL: <https://pubmed.ncbi.nlm.nih.gov/35217532/>
104. Trisomy 21 increases microtubules and disrupts centriolar satellite localization.  
McCurdy, B.L., Jewett, C.E., Stemm-Wolf, A.J., Duc, H.N., Joshi, M., **Espinosa, J.M.**, Prekeris, R., Pearson, C.G.  
*Molecular Biology of the Cell*, doi: 10.1091/mbc.E21-10-0517-T. Online ahead of print., **2022**.  
URL: <https://pubmed.ncbi.nlm.nih.gov/35476505/>
105. Enhanced T cell effector activity by targeting the Mediator kinase module.  
Freitas, K.A., Belk, J.A., Sotillo, E., Quinn, P.J., Ramello, M.C., Malipatilolla, M., Daniel, B., Sandor, K., Klysz, D., Bjelajac, J., Xu, P., Burdsall, K.A., Tieu, V., Duong, V.T., Donovan, M.G., Weber, E.W., Chang, H.Y., Majzner, R.G., **Espinosa, J.M.**, Satpathy, A.T., Mackall, C.L.  
*Science*, 378(6620):eabn5647. doi: 10.1126/science.abn5647. **2022**.  
URL: <https://pubmed.ncbi.nlm.nih.gov/36356142/>
106. PPM1D suppresses p53-dependent transactivation and cell death by inhibiting the Integrated Stress Response.  
Andrysik, Z., Sullivan, K.D., Kieft, J.S., and **Espinosa, J.M.**  
*Nature Communications* 13(1):7400. doi: 10.1038/s41467-022-35089-5, **2022**.  
URL: <https://pubmed.ncbi.nlm.nih.gov/36456590/>

107. IGF1 deficiency integrates stunted growth and neurodegeneration in Down syndrome.  
 Araya, P., Kinning, K.T., Coughlan, C., Smith, K.P., Granrath, R.E., Enriquez-Estrada, B.A., Worek, K., Sullivan, K.D., Rachubinski, A.L., Wolter-Warmerdam, K., Hickey, F., Galbraith, M.D., Potter, H., and **Espinosa, J.M.**  
*Cell Reports*, 41, 111883, **2022**.  
 URL: [https://www.cell.com/cell-reports/fulltext/S2211-1247\(22\)01779-X](https://www.cell.com/cell-reports/fulltext/S2211-1247(22)01779-X)
108. Trisomy 21 induces pericentrosomal crowding delaying primary ciliogenesis and mouse cerebellar development.  
 Jewett, C.E., McCurdy, B.L., O'Toole, E.T., Given, K.S., Lin, C.H., Olsen, V., Martin, W., Reinholdt, L.G., **Espinosa, J.M.**, Sullivan, K.D., Macklin, W.B., Prekeris, R., Pearson, C.G.  
*eLIFE*, accepted, in press **2022**.
109. Multi-omics investigation reveals functional specialization of transcriptional cyclin-dependent kinases in cancer biology.  
 Donovan, M.G., Galbraith, M.D., and **Espinosa, J.M.**  
*Scientific Reports*, accepted, in press **2022**.
110. Cell differentiation modifies the p53 transcriptional program through a combination of gene silencing and constitutive transactivation  
 Tatavosian, R., Donovan, M.G., Galbraith, M.D., Duc, H.N., Szwarc, M.M., Joshi, M.U., Frieman, A., Biloussova, G., Cao, Y., Smith, K.P., Song, K., Rachubinski, A.L., Andrysik, Z., and **Espinosa, J.M.**  
*Cell Death and Differentiation*, accepted, in press **2023**.

## VI. RESEARCH FUNDING (since independent appointment only)

### *Current Support:*

**National Heart, Lung, and Blood Institute (NHBLI)** 09/2020-09/2025

Award Number: U2CHL156291

PIs: Resnick (contact), Espinosa, O'Connor, Carroll, DiGiovanna, Ferretti, Haendel

Total Costs: \$19,480,368

Direct Costs/year: \$401,387 (Espinosa subaward)

Title: *Data Management and Portal for the INCLUDE (DAPI) Project*.

**National Institute of Allergy and Infectious Diseases (NIAID)** 09/2019-09/2024

Award Number: R01AI50305

PI: Espinosa

Total Costs: \$2,831,000

Direct Costs/year: \$364,000

Title: *Understanding Down Syndrome as an Interferonopathy*.

**National Institute of Arthritis, Musculoskeletal and Skin Diseases (NIAMS)** 08/2022-07/2025

Award Number: R33AR077495

PIs: Espinosa (contact), Norris, Dunnick

Total Costs: \$3,074,786

Direct Costs/year: variable

Title: *JAK inhibition in Down syndrome*.

**National Cancer Institute (NCI)** 02/2018-01/2023

Award Number: R01CA117907

PI: Joaquin M. Espinosa

Total Costs: \$1,661,905

Direct Costs/year: \$213,750

Title: *Mechanisms of gene expression control in the p53 network*.

**National Cancer Institute (NCI)** 02/2017-01/2022

Award Number: P30CA046934

PI: Richard Shulick  
Co-I: Joaquin M. Espinosa  
Total Costs: \$19,293,511  
Direct Costs/year: \$119,712 (for support of the Functional Genomics Shared Resource)  
Title: *Cancer Center Support Grant for the University of Colorado Cancer Center.*

**National Institute of Allergy and Infectious Diseases (NIAID)** 06/2019-05/2024  
Award Number: R01AI141662  
PI: Michael Yeager  
Co-I: Joaquin M. Espinosa  
Total Costs: \$1,944,000  
Direct Costs/year: \$250,000  
Title: *Persistent post-viral state of bacterial pneumonia susceptibility and severity in Down syndrome.*

**National Institute on Aging (NIA)** 09/2019-08/2021  
Award Number: R61AG066543  
PI: Michael Rafii  
Co-I: Joaquin M. Espinosa  
Total Costs: \$4,649,674  
Direct Costs/year: \$40,000 (Espinosa subaward)  
Title: *Clinical trials to prevent Alzheimer's disease in Down syndrome.*

**National Institute of Child Health and Human Development (NICHD)** 09/2022-06/2024  
Award Number: R61HD109748  
PIs: Espinosa (contact), Santoro, Sannar  
Total Costs: 1,176,407  
Direct Costs/year: variable  
Title: *Mechanistic investigation of therapies for Down syndrome Regression Disorder.*

**National Institute of Child Health and Human Development (NICHD)** 09/2021-06/2023  
Award Number: R01HD099150-03S1  
PI: Deborah Fidler  
Co-I: Joaquin M. Espinosa  
Total Costs: 373,423 (subaward to Espinosa)  
Direct Costs/year: variable  
Title: *Biosignatures of executive dysfunction in Down syndrome.*

**National Institute of Arthritis, Musculoskeletal and Skin Diseases (NIAMS)** 09/2021-08/2026  
Award Number: P30AR079369  
PI: Michael Holers  
Member of Scientific Advisory Board: Joaquin M. Espinosa  
Total Costs: \$3,755,788  
Direct Costs/year: variable  
Title: *Center for mucosal immunobiology and rheumatic disease pathogenesis.*

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**Completed Support:**

**The Leukemia and Lymphoma Society** 07/2004-06/2007  
Award Number: 3407-04  
PI: Joaquín M. Espinosa  
Total Costs: \$150,000  
Title: *Mechanisms of transcriptional regulation by the tumor suppressor p53.*

**Department of Defense** 09/2005-09/2007  
Award Number: CM050054  
PI: Joaquín M. Espinosa

Total Costs: \$150,000	
Title: <i>Counteracting the oncogenic effects of Bcr-Abl by disrupting MDM2-p53 interactions in CML cells.</i>	
<b>Lung Cancer SPORE Pilot Grant – UCCC</b>	07/2006-06/2007
PI: Joaquín M. Espinosa	
Total Costs: \$30,000	
Title: <i>Non-genotoxic activation of p53 in lung cancer cells: a cellular and molecular analysis.</i>	
<b>Council on Research and Creative Work (CU-Boulder)</b>	07/2006-06/2007
PI: Joaquín M. Espinosa	
Total Costs: \$5,000	
Title: <i>Identification of genes mediating the response to a novel form of cancer therapy.</i>	
<b>March of Dimes</b>	02/2006-01/2008
Award Number: 5-FY05-1217	
PI: Joaquín M. Espinosa	
Total Costs: \$150,000	
Title: <i>Mechanisms of transcriptional regulation by p63 transcription factors</i>	
<b>Cancer League of Colorado</b>	07/2008-06/2009
PI: Joaquín M. Espinosa	
Total Costs: \$30,000	
Title: <i>Mechanisms of cell fate choice to therapeutic activation of p53.</i>	
<b>Butcher Award</b>	06/2010-06/2011
PIs: Joaquín M. Espinosa, Robin Dowell	
Total costs: \$100,000	
Title: <i>p53 meets genomics: elucidating the p53 transcriptome by global run-on deep sequencing.</i>	
<b>National Cancer Institute (NCI)</b>	02/2006-01/2012
Award Number: R01CA117907	
PI: Joaquín M. Espinosa	
Total Costs: ~\$1,057,900	
Direct Costs/year: \$140,000	
Title: <i>Stress- and promoter- specific mechanisms of transcriptional activation by p53.</i>	
<b>National Science Foundation (NSF)</b>	04/2009-01/2013
Award Number: MCB-0842974	
PI: Joaquín M. Espinosa	
Total Costs: \$453,957	
Direct Costs/year: \$95,000	
Title: <i>Functional studies of the CDK-module of the human Mediator complex.</i>	
<b>The Leukemia and Lymphoma Society</b>	10/2013-10/2014
Award Number: NIA #8996-14	
PI: Joaquín M. Espinosa	
Total Costs: \$100,000	
Direct Costs/year: \$100,000	
Title: <i>A systematic test of synthetic lethality in personalized cancer therapy.</i>	
<b>Linda Crnic Institute for Down Syndrome</b>	03/2013-03/2015
PI: Joaquín M. Espinosa	
Total Costs: \$100,000	
Direct Costs/year: \$100,000	
Title: <i>A genetic screen for synthetic lethal pathways with trisomy 21.</i>	
<b>Howard Hughes Medical Institute Early Career Award</b>	09/2009-08/2015
PI: Joaquín M. Espinosa	
Total Costs: >\$2,000,000	

Direct Costs/year: \$150,000 (year 1) increasing to \$300,000 (year 6), plus PI's salary and lab rental.  
Title: *Understanding how gene networks control cell behavior: the p53 paradigm.*

**Cancer League of Colorado (CLC)** 07/2015-06/2016

PIs: Andrew Thorburn, Joaquín M. Espinosa

Total Costs: \$60,000

Title: *Selective targeting of drug-induced autophagy to improve cancer therapy.*

**Head and Neck SPORE Pilot Grant – UCCC** 09/2015-08/2016

PI: Joaquín M. Espinosa

Total costs: \$50,000

Title: *Mechanisms of ΔNp63α addiction in HNSCC.*

**National Cancer Institute (NCI)** 04/2012-03/2017

Award Number: R01CA117907

PI: Joaquín M. Espinosa

Total Costs: \$1,396,750

Direct Costs/year: \$185,000

Title: *Mechanisms of gene-specific transcriptional regulation within the p53 network.*

**National Science Foundation (NSF)** 03/2013-02/2017

Award Numbers: MCB-1243522 and -1627615

PI: Joaquín M. Espinosa

Total Costs: \$1,079,999

Direct Costs/year: \$165,000

Title: *Functional specialization of the Mediator-associated kinases CDK8 and CDK19.*

**Molecular Oncology Program Pilot Grant – UCCC** 01/2017-12/2017

PI: Joaquín M. Espinosa

Total Costs: \$25,000

Direct Costs/year: \$25,000

Title: *Preclinical development of synthetic lethal with Nutlin treatment.*

**Biogen Idec. Sponsored Research Agreement** 07/2016-10/2018

Award number: WD-165055

PI: Joaquín M. Espinosa

Total Costs: \$313,800

Title: *Epigenomic Analysis of Trisomy 21.*

**Developmental Therapeutics Program Pilot Grant – UCCC** 08/2017-07/2018

PIs: Espinosa, Villalobos, Sullivan

Total Costs: \$50,000

Direct Costs/year: \$50,000

Title: *Harnessing the power of p53 for sarcoma treatment.*

**Golfers Against Cancer** 09/2017-08/2018

PIs: Espinosa, Galbraith, Serkova, Old

Total Costs: \$50,000

Direct Costs/year: \$50,000

Title: *Identifying CDK8-based combinatorial therapeutic strategies.*

**Wings of Hope Pancreatic Research Foundation** 09/2017-08/2018

PIs: Espinosa, Pitts, Sullivan

Total costs: \$50,000

Direct costs/year: \$50,000

Title: *Identification of therapeutic liabilities in the mutant p53 transcriptome.*

**Fonfara-Larose Fund for Leukemia in Down Syndrome** 01/2016-01/2018

PI: Joaquín M. Espinosa

Total Costs: \$150,000  
Direct Costs/year: ~\$75,000  
Title: *Studies of leukemia in Down syndrome.*

**Dorothy Holder Liposarcoma Research Fund** 07/2016-06/2018  
PIs: Espinosa, Villalobos, Elias, Sullivan  
Total Costs: \$150,000  
Direct Costs/year: ~\$75,000  
Title: *p53 based therapies in liposarcoma.*

**National Center for Advancing Translational Sciences (NCATS)** 09/2019-04/2020  
Award number: UL1TR002535-02S1  
PI: Ron Sokol  
Co-I: Joaquín M. Espinosa  
Total Costs: \$775,700 (to Espinosa Lab)  
Direct Costs/year: \$498,790  
Title: *Accelerating Clinical Research on Down Syndrome at the CCTSI and Beyond.*

**National Institute of General Medical Sciences (NIGMS)** 08/2016-07/2020  
Award number: R01GM120109  
PI: Joaquín M. Espinosa  
Total Costs: \$1,536,000  
Direct Costs/year: \$197,500  
Title: *Mechanisms of gene expression control during the cellular response to hypoxia.*

**Chancellor's Innovation Discovery Fund** 04/2020-03/2021  
PI: Joaquin M. Espinosa  
Total Costs: \$174,262  
Direct Costs/year: \$174,262  
Title: *Repurposing baricitinib for the treatment of COVID-19.*

**Fast Grants** 08/2020-07/2021  
Award Number: 2134  
PI: Joaquin M. Espinosa  
Total Costs: \$100,000  
Direct Costs/year: \$100,000  
Title: *Therapeutic strategies to attenuate the hyperinflammatory response caused by SARS-CoV-2.*

**National Institute of Arthritis, Musculoskeletal and Skin Diseases (NIAMS)** 09/2019-08/2021  
Award Number: R61AR077495  
PIs: Joaquin M. Espinosa (contact), David Norris, Cory Dunnick  
Total Costs: \$1,085,000  
Direct Costs/year: variable  
Title: *JAK inhibition in Down syndrome clinical trial.*

**National Science Foundation (NSF)** 08/2018-07/2022  
Award Number: MCB-1817582  
PI: Joaquin M. Espinosa  
Total Costs: \$1,200,000  
Direct Costs/year: \$193,000  
Title: *Systematic analysis of context-specific functions of transcriptional CDKs in human cells.*

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## VII. TEACHING

### ***Classroom teaching at CU-Boulder:***

2006-2013    **Instructor.** Biology of the Cancer Cell (MCDB3150), >120 students.

- 2005-2013   **Co-Instructor.** Graduate Program CORE Course (MCDB5230), 10-20 students.  
 2009-2014   **Invited Lecturer.** Advanced Topics in Signal Transduction and Cell Cycle Regulation (CHEM5801), 10-20 students.  
 2011-2014   **Invited Lecturer.** Genetics (MCDB2150), >100 students.  
 2013-present   **Invited Lecturer.** From Bench to Bedside (MCDB4201), ~20 students.

***Classroom teaching at the CU Anschutz Medical Campus (CU-AMC):***

- 2017-2020   **Invited Lecturer.** Cancer Biology (CANB7600), ~20 students.

***Membership in graduate training programs at CU-AMC, CU-Boulder, and CU Denver campuses since 2017:***

- Pharmacology (AMC)
- Cancer Biology (AMC)
- Immunodermatology (AMC)
- Human Medical Genetics and Genomics (AMC)
- Biomedical Sciences (AMC)
- Rheumatology (AMC)
- Medical Scientist Training Program (AMC)
- IQ Biology (Boulder)
- Integrative Physiology (Denver)

***Non-classroom teaching at CU:***

1. **Mentor for undergraduate students in the laboratory (57 total):** Meagan McBryde (2005-2007), Megan Ash (2005-2007), Glen Bjerke (2005-2006), Jennifer Hoover (2005-2008), Jenna Rose (2005), Jeffrey Ahn (2005), Sarah Stephens (2006-2008), Grant Weaver (2006), Max Ederer (2007), Vadim Tsvankim (2007), Jason Gotzinger (2006), Rachel Rice (2007-2008), Sarah Baldridge (2007-2008), Leif Nietzel (2007-2008), Rishi Rawat (2008), Rakel Salamander (2008), Christopher Potts (2008-2010), Marybeth Sechler (2008-2009), Federico Unglaub (2008-2009), Whitney Haseman (2009-2010), Amy Raucher (2009-2010), Sophia Pelecanos (2009-2010), Jace Burton (2009-2010), Max Renner (2010), Jenny Sims (2010-2011), Nuria Padilla Just (2010-2011), Jack Tran (2010-2012), Claire Bensard (2011-2012), Uri Bulow (2011-2012), Tom White (2012), Matthew Smelser (2012-2013), Dave Myers (2012-2013), Aubrey Pierce (2011-2012), Justin Freeman (2011), Amber Johnson (2012-2013), Emily Dohm (2013-2014), Nicole Michael (2013-2015), Joseph Cabral (2013), Kyle Tucker (2013-2014), Zane Gibbs (2014-2015), Samantha Gumbin (2014-2015), Caitlin Ritz (2014-2015), Madeline Brown (2014-2015), Elizabeth Bonner (2015), Adam Chalek (2016), Vienna Benavidez (2016), Alex Ho (2016), Kilye Vanhoesen (2016), Adnan Syen (2016), Jennyvette Trinidad Pineiro (2017), Sweta Boopatiraju (2017), Suyoun Kim (2017) Aimee Bui (2017-2019), Kristen Drew (2017-2019), Shiema Elhussen (2017-2020), Teagan Glass (2018), Emily Adams (2018-2022).
2. **Mentor for Ph.D. students (7 total):** Aaron Donner (graduated in 2010), Nathan Gomes (graduated in 2010), Ryan Henry (graduated in 2012), Katherine Audetat (graduated in 2017), Roni Dengler (2014-2015), Paula Araya (graduated in 2019), Roubina Tatavosian (graduated in 2022).
3. **Mentor for Post-Doctoral Fellows (23 total):** Ramiro Paris (2006-2008), Ignacio Nojek (2006-2008), Zdenek Andrysik (2009-2015), Lindsay Levkoff (2009), Kelly Sullivan (2009-2015), Mathew Galbraith (2009-2015), Corrie Gallant-Behm (2009-2013), Renee Paulsen (2010-2011), Mary Allen (2010-2014), Hestia Mellert (2011-2015), Jean-Luc Fraikin (2011-2012), Jessica Nichol (2012), Anna Guarnieri (2013-2019), Rose Byrne (2013-2014), Chris Abraham (2014-2018), Katherine Waugh (2015-present), Donald Evans (2015-2018), Heather Bender (2017-2020), Katherine Tuttle (2017-2020), Maria Szwarc (2018-present), Paula Araya (2019-present), Micah Donovan (2021-present), Brian Niemeyer (2022-present).
4. **Mentor for Rotation Students (27 total):** Megan Wemmer (2004), Ben Barthel (2005), Nick Farina (2005), Becky Nixx (2006), Aileen Spindler (2007), Dan Adams (2007), Kent Riemonyd (2008), Jessica Vera (2009), Justin Holt (2009), Kate Goldfarb (2011), Minghua Liu (2011), Brian Huiton

(2011), Andre Hersan (2011), Eli Geron (2012), Roni Dengler (2012), Marie Balboa (2012), Ariel Hernandez (2013), Joshua Wheeler (2013), Russell Burke (2013), John Nardini (2014), Laura White (2016), Matthew Svalina (2016), Marlie Fisher (2017), Britanny Truong (2017), Madeline Kane (2018), Mariah Meyer (2018), Ian Shelton (2021).

5. **Member of Ph.D. thesis committee (24 total):** Annita Whichmann, Travis Hughes, Brady Culver, Nick Farina, Mary Allen, Allyson Schaaff, Alfonso Garrido-Lecca, Kent Reimondy, Jessica Vera, Li Wang, Joel Basken, Christopher Bennet (MCD Biology, CU-Boulder). Jeff Beckman, Darren Bates, Brian Kalet, Matthew Knuesel, Krista Meyer, Chris Ebmeier and Zachary Poss (Chemistry and Biochemistry, CU-Boulder). Pippa Cosper, Doug Micalizzi, Christina Garlington, Brent Fitzwalter, and Lucas Gillenwater (UCD-SOM).
6. **Mentor of Undergraduate Honor Thesis (6 total):** Meagan McBryde (2007), Jennifer Hoover (2008), Sarah Stephens (2008), Claire Bensard (2012), Amber Johnson (2013), Nicole Michael (2014).
7. **Mentor for Junior Faculty and Medical Fellows (12 total).** Brian Dedecker (MCD Biology 2010-2015) James Orth (MCD Biology, 2013-2015), Jennifer Diamond (CU-SOM, 2014-2020), Kelly Sullivan (2015-present), Zdenek Andrysik (2015-present), Matthew Galbraith (2015-present), Joshua Black (CU-SOM, 2016-present), Holly Pacenta (2016-2018), Angela Rachubinski (2017-present), Lindsay Wheeler (2017-2020), Michael Yeager (2018-present), Marisa Stahl (2019-present).
8. **Mentor for post-graduate Professional Research Assistants (41 total).** Jessica Baxter, Claire Bensard, Elizabeth Bonner, Douglas Burch, Eric Butcher, Joseph Cabral, Kendra DeHay, Emily Dohm, Hannah Dougherty, Huy Duc, Justin Freeman, Ross Granrath, Leisa Jackson, Amber Johnson, Ashley Knox, Madison Laird, Hannah Lewis, Morgan MacBeth, Ross Minter, Ahwan Pandey, Colin Sempeck, Elizabeth Terhune, Kayleigh Worek, Petros Yoon, Patricia Zornio, Natalie Briones, Belinda Enriquez Estrada, Amanda Hill, Maria Hoh, Santosh Khanal, Kohl Kinning, Michael Ludwig, Neetha Eduthan, Kyndal Schade, Jessica Shaw, Keith Smith, Leonard Maroun, Eleanor Britton, Hannah Lyfford, Pamela Navarrete, Belinna Guerra.

#### ***Teaching beyond the University of Colorado:***

- 2008-2012 **Instructor.** Cold Spring Harbor Laboratory, Summer Course on Eukaryotic Gene Expression.
- 2006-2019 **PhD Thesis Committee Member outside of CU:** Melissa Mattia and Rachel Beckerman (Department of Biological Sciences, Columbia University, New York) and Manuel de la Mata (Departamento de Biología, Universidad de Buenos Aires).
- 2011       **Instructor.** The American Society for Cell Biology (ASCB), Africa Teaching Team.
- 2016       **Instructor.** Universidad de Concepción, Chile. Post-graduate course on Hallmarks of Cancer.

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#### **VIII. INVITED TALKS, LECTURES & SEMINARS.**

- 2001 American Association for Cancer Research (AACR) Annual Meeting, New Orleans, LA, U.S.A.
- 2002 PEW Annual Meeting, Member of the Organizing Committee and Chair of the Cell Cycle Session, Puerto Vallarta, México.
- 2003 Gene Expression and RNA Processing Symposium organized by International Centre for Genetic Engineering and Biotechnology (ICGEB), Iguazú Falls, Argentina.  
Federation for American Societies for Experimental Biology (FASEB) meeting, Snowmass, CO, U.S.A.
- 2004 The Leukemia and Lymphoma Society Annual Meeting, Denver, CO. U.S.A.  
Department of Biochemistry, University of Washington, Seattle, WA, U.S.A.  
Comprehensive Cancer Center, University of California at San Francisco, U.S.A.  
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), Bethesda, MD, U.S.A.

- National Institute of Environmental Health Sciences, Triangle Research Park, NC, U.S.A.
- 2005 University of Colorado Health Sciences Center, Molecular Biology Seminar Series, Denver, CO, U.S.A.
- 2006 SPORE in Lung Cancer Program, UCCC, Aurora, CO, U.S.A.  
 Laboratorio de Fisiología y Biología Molecular, Universidad de Buenos Aires, Argentina.  
 Instituto de Investigaciones en Biología Molecular e Ingeniería Genética, Buenos Aires, Argentina.  
 Instituto Leloir, Buenos Aires, Argentina.  
 Annual Meeting of the Congressionally Directed Medical Research Program in Chronic Myelogenous Leukemia, Orlando, FL, U.S.A.  
 American Society for Biochemistry and Molecular Biology (ASBMB) Meeting on Transcriptional Regulation by Chromatin and RNA polymerase II, Kiawah Island, SC, U.S.A.
- 2007 Department of Biological Sciences, Columbia University, New York, U.S.A.  
 Oncology Fellows Program, University of Colorado Health Sciences Center, Denver, CO, U.S.A.  
 Mechanisms and Models of Cancer Meeting, The Salk Institute for Biological Studies, La Jolla, U.S.A.  
 Cold Spring Harbor Laboratories meeting on Mechanisms of Eukaryotic Transcription, NY, U.S.A.  
 Gene Expression and RNA Processing Symposium (ICGEB), Bariloche, Argentina.
- 2008 Federation for American Societies for Experimental Biology (FASEB) meeting, Snowmass, CO, U.S.A.  
 Massachusetts General Hospital Cancer Center, Boston, MA, U.S.A.  
 Helsinki Biomedical Student Symposium, Helsinki, Finland.  
 Center for Genomic Regulation (CRG), Barcelona, Spain.  
 International Center for Genetic Engineering and Biotechnology (ICGEB), Trieste, Italy.  
 American Medical Student Association (AMSA), Colorado Chapter, Boulder, CO, U.S.A.  
 ASBMB Meeting on Transcriptional Regulation by Chromatin and RNAPII, Lake Tahoe, CA, U.S.A.  
 Louisiana State University Health Sciences Center, Shreveport, LA, U.S.A.
- 2009 Novartis Institute for Biomedical Research, Boston, MA, U.S.A.  
 Colorado State University Animal Cancer Center, Fort Collins, CO, U.S.A.  
 University of Colorado Health Science Center, Aurora, CO, U.S.A.  
 Keystone Symposia on Deregulation of Transcription in Cancer, Kerry, Ireland.  
 Cold Spring Harbor Laboratories meeting on Mechanisms of Eukaryotic Transcription, NY, U.S.A.  
 Kittredge Honors Program, University of Colorado at Boulder, CO, U.S.A.  
 National Institutes of Diabetes, Digestive and Kidney Diseases (NIDDK), Bethesda, MD, U.S.A.  
 Colorado State University, Department of Cell and Molecular Biology, Fort Collins, CO, U.S.A.  
 Howard Hughes Medical Institute, Janelia Farm Research Campus, MD, U.S.A.  
 Columbia University, Department of Biological Sciences, New York, NY, U.S.A.
- 2010 McGill University Graduate Student Symposium, Montreal, Canada.  
 UCCC Bi-annual Retreat, Westminster, CO, U.S.A.  
 ASBMB Annual Meeting, Session on Chromatin and Transcription, Anaheim, CA, U.S.A.  
 SomaLogic, Boulder, CO, U.S.A.  
 Department of Immunology Annual Retreat, UCDHSC, Glenwood Springs, CO, U.S.A.  
 Max Planck Society Meeting on P-TEFb and Elongation Control, Munich, Germany.  
 The 15<sup>th</sup> International p53 Workshop, Philadelphia, PA, U.S.A.  
 UC Denver Medical School, Molecular Biology Program, Aurora, CO, U.S.A.  
 ASBMB Meeting on Transcriptional Regulation by Chromatin and RNAPII, Lake Tahoe, CA, U.S.A.  
 Mount Sinai School of Medicine, New York, NY, U.S.A.  
 University of Arizona, Tucson, AZ, U.S.A.

- 2011 Tufts University, Genetics Program, Boston, MA, U.S.A.  
 Gordon Research Conference on Cell Growth and Proliferation, Biddeford, ME, U.S.A.  
 Cold Spring Harbor Laboratories Meeting on Mechanisms of Eukaryotic Transcription, NY, U.S.A.  
 Symposium on Chromatin Changes during Differentiation and Malignancies, Giessen, Germany.  
 Gene Expression and RNA Processing Symposium (ICGEB), Iguazú Falls, Argentina.  
 VI MDM2 International Workshop, New York Academy of Sciences, NY, U.S.A.  
 Howard Hughes Medical Institute, Janelia Farm Research Campus, MD, U.S.A.  
 Butcher Symposium, Westminster, CO, U.S.A.
- 2012 The John H. Baffler Lecture Series, M.D. Anderson Cancer Center, Houston, TX, U.S.A  
 The University of Illinois at Chicago, Department of Medicine, IL, U.S.A.  
 Promega Corporation, Madison, WI, U.S.A.  
 Banbury Meeting on Transcription and Cancer, Cold Spring Harbor Laboratories, NY, U.S.A.  
 ASBMB Annual Meeting, Session on Transcriptional Regulation during Growth and Development, San Diego, CA, U.S.A.  
 Program in Reproductive Sciences, Department of Obstetrics and Gynecology, UCD-SOM, CO, U.S.A.  
 University of California at San Francisco, Department of Biochemistry and Biophysics, CA, U.S.A.  
 The Science Coalition Congressional Briefing, Washington D.C., U.S.A.  
 FASEB Meeting on Transcriptional Regulation during Cell Growth, Differentiation and Malignancy, Snowmass, CO, U.S.A.  
 ASBMB Meeting on Transcriptional Regulation by Chromatin and RNAPII, Snowbird, Utah, U.S.A.  
 Ponce School of Medicine, Ponce, Puerto Rico.  
 Colorado College at Colorado Springs, CO, U.S.A.
- 2013 The Stowers Institute, Kansas City, KS, U.S.A.  
 Department of Biochemistry, University of Washington, Seattle, WA, U.S.A.  
 Universite de Sherbrooke, Sherbrooke, Quebec, Canada.  
 Cold Spring Harbor Laboratories Summer Course on Eukaryotic Gene Expression, NY, U.S.A.  
 FASEB Summer Research Conference on Transcription, Chromatin & Epigenetics, Bahamas.  
 Howard Hughes Medical Institute, Chevy Chase Headquarters, MD, U.S.A.  
 Annual Biomedical Research Conference for Minority Students, Nashville, TN, U.S.A. (\*)
- 2014 Keystone Symposia on Hypoxia Signaling, Breckenridge, CO, U.S.A.  
 Keystone Symposia on Transcriptional Regulation and Cancer Epigenetics, Santa Fe, NM, U.S.A.  
 The PEW Charitable Trust Program in Biomedical Sciences Meeting, Jaco Beach, Costa Rica.  
 Department of Genetics, University of Georgia at Athens, GA, U.S.A.  
 Biomedical Sciences Graduate Program, Association of Multicultural Scientists (AMS) at the University of Michigan, Ann Arbor, MI, U.S.A.(\*)  
 Department of Chemical and Systems Biology, Stanford University, CA, U.S.A.  
 p53 International Workshop, Stockholm, Sweden.  
 EMBL meeting on Transcription and Chromatin, Heidelberg, Germany.  
 Department of Biochemistry, Vanderbilt University, Nashville, TN, U.S.A.  
 Annual meeting of the Chilean Society of Biochemistry and Molecular Biology, Puerto Varas, Chile.  
 James H. Holland Lecture, Department of Biology, Indiana University, Bloomington, IN, U.S.A (\*)  
 Annual meeting of the Argentine Society of Biochemistry and Molecular Biology, Rosario, Argentina.  
 European Institute of Oncology, Milan, Italy.  
 University of Trento, Trento, Italy.  
 University of Massachusetts at Worcester, Diversity Interest Group, Department of Cell and Developmental Biology. MA, U.S.A.(\*)
- 2015 Department of Oncological Sciences, Huntsman Cancer Institute, Salt Lake City, UT, U.S.A.

- Department of Biochemistry and Molecular Genetics, University of Alabama at Birmingham, AL, U.S.A.
- HHMI EXROP Symposium, Keynote Speaker, Chevy Chase, MD, U.S.A. (\*)
- HHMI Annual Meeting, Janelia Farm, VA, U.S.A.
- National Down Syndrome Congress Convention, Phoenix, AZ, U.S.A.
- Cold Spring Harbor Laboratories Meeting on Mechanisms of Eukaryotic Transcription, NY, U.S.A.
- Cold Spring Harbor Laboratories Summer Course on Eukaryotic Gene Expression, NY, U.S.A.
- p53 Isoforms Workshop, Aix-en-Provence, France.
- VIII MDM2 International Workshop, New Orleans, LA, U.S.A.
- National Institute of Environmental Health Sciences, Research Triangle Park, NC, U.S.A.
- 2016 Keystone Symposia on Transcription and Metabolism, Snowbird, UT, U.S.A.
- Keystone Symposia on Down Syndrome, Santa Fe, NM, U.S.A.
- Cold Spring Harbor Laboratories, NY, U.S.A.
- Down Syndrome Affiliates in Action, Charlotte, NC, U.S.A.
- American Association for Cancer Research Annual Meeting, New Orleans, LA, U.S.A.
- Universidad de Buenos Aires, Buenos Aires, Argentina.
- Promega Corporation, Madison, WI, U.S.A.
- National Down Syndrome Congress Convention, Orlando, FL, U.S.A.
- Department of Immunology, CU-SOM, Aurora, CO, U.S.A.
- Department of Biomedical Research, National Jewish Health, Denver, CO, U.S.A.
- ASBMB Meeting on Transcriptional Regulation by Chromatin and RNAPII, Snowbird, UT, U.S.A.
- University of Texas Southwestern Medical Center, Dallas, TX, U.S.A.
- Fred Hutchinson Cancer Research Center, Seattle, WA, U.S.A.
- 2017 UCCC Seminar Series, Denver, CO, U.S.A.
- Stupka Undergraduate Symposium, Iowa State University, IA, U.S.A.\*
- Keystone Symposia on Interferon, Banff, Canada.
- Trisomy 21 Research Society, Chicago, IL, U.S.A.
- p53 Isoforms Workshop, Bergen, Norway.
- Institute Pasteur, Paris, France.
- Neovacs Inc, Paris, France.
- Elena Regina Cancer Institute, Rome, Italy.
- p53 International Workshop, Singapore.
- National Down Syndrome Congress, Sacramento, CA, U.S.A.
- Society of Pediatric Pathology, Denver, CO, U.S.A.
- Molecular Biosystems Conference, Puerto Varas, Chile.
- 2018 Down Syndrome Affiliates in Action (DSAIA), Denver, U.S.A.
- Barbara Davis Center, CU-AMC, Denver, CO, U.S.A..
- Department of Pathology Grand Rounds, CU-AMC, Denver, CO, U.S.A..
- Keystone Symposia on Therapeutic Targeting of Hypoxia-Sensitive Pathways, Oxford, England.
- National Down Syndrome Congress (NDSC), Dallas, TX, U.S.A.
- MDM2 International Workshop, Tampa, FLA, U.S.A.
- 2019 Conference on Alzheimer's Disease in Down Syndrome, Washington D.C., U.S.A.
- Down Syndrome Affiliates in Action, Saint Louis, Missouri, U.S.A.
- National Down Syndrome Congress, Pittsburgh, Pennsylvania, U.S.A.
- Personalized Medicine Symposium, CU-SOM, Denver, CO, U.S.A.
- Keynote Lecture, Massachusetts Institute of Technology, Symposium on Translational Science in Down Syndrome, Cambridge, MA, U.S.A.
- Human Immunology and Immunotherapy Initiative, CU-SOM, Denver, CO, U.S.A.
- 2020 Down Syndrome Affiliates in Action. Online webinar.
- Global Down Syndrome Foundation. Online webinar.
- National Down Syndrome Congress. Online webinar.

	Human Immunology and Immunotherapy Initiative, CU-SOM. Online webinar.
	NIH INCLUDE Project Clinical Trials Workshop. Online webinar.
	Alzheimer's Association. Online webinar.
	JAK Inhibitor Drug Development Summit. Online webinar.
	National Down Syndrome Congress. Online webinar.
	NIH INCLUDE Basic Science to Cohort Development Workshop. Online webinar.
	The COVIDome Project, CU-AMC. Online Webinar.
	University of Vermont School of Medicine Grand Rounds. Online webinar.
	Gilead Sciences Inc. Immunity and Inflammation Group. Online webinar.
	Alzheimer's Biomarkers Consortium in Down Syndrome. Online webinar.
	Department of Dermatology, CU-SOM. Online Webinar.
2021	Down Syndrome Affiliates in Action. Online webinar.
	Benaroya Research Institute. Online webinar.
	Trisomy 21 Research Society. Online webinar.
	Instituto de Investigaciones Bioquímicas, Universidad Nacional de Mar Del Plata, Argentina.
	Online webinar.
	Down syndrome Medical Interest Group. Online webinar.
	National Down Syndrome Congress. Online webinar.
	Instituto de Ingenieria Genética and Biología Molecular, Buenos Aires, Argentina. Online webinar.
	Ventus Pharmaceuticals. Online webinar.
	NIH INCLUDE Project Workshop. Online webinar.
	American Speech Language Hearing Association. Online webinar.
	European Brain Research Area – Trisomy 21 cluster. Online webinar.
	Sociedad Argentina de Ingeniería Genética y Bioquímica. Online webinar.
	Global Down Syndrome Foundation. Online webinar.
2022	Cincinnati's Children Hospital. Online webinar.
	Pulmonary and Critical Care Medicine Educational Series, University of Colorado. Online webinar.
	National Institutes of Health Down Syndrome Consortium. Online webinar.
	ImpactT21 Research Conference. Online webinar.
	Pharmacogenomics Global Research Network. Aurora, Colorado, USA
	Down Syndrome Medical Interest Group. Online webinar.
	National Down Syndrome Congress. New Orleans, Louisiana, USA.
	Trisomy 21 Research Society, Long Beach, California, USA.
	Down Syndrome Diagnosis Network Conference, Washington DC, USA.
	Gabriella Miller Kids First Program. Keynote lecture, online webinar.
	US Senate. Briefing on Down syndrome Research, Washington DC, USA.
	INCLUDE Investigator Workshop. Online webinar.
	Global Down Syndrome Foundation. Online webinar.

\* These seminars involve outreach activities for recruitment of underrepresented minorities into the life sciences.

## IX. SERVICE

### ***CU-Boulder:***

2005-2008	Member of the Committee on Graduate Students Affairs (COGSA).
2006	Member of the Chair Search Committee.
2006	Member of the Junior Faculty Search Committee.
2007-2009	Member of the Seminars Committee.
2007-	Member of MCD Biology Bi-Annual Retreat Organizing Committee.
2008-2012	Member of the Junior Faculty Search Committee.
2011	Member of the Graduate Student Admissions Committee.
2012	Member of the Committee on Graduate Students Affairs (COGSA).

2012-2015 Faculty Associate, Faculty Teaching Excellence Program (FTEP) at CU-Boulder.  
2013 Member of Undergraduate Committee (UGCOM).

**CU-SOM:**

2018-present Chair, Department of Pharmacology Promotions Committee.  
2019 Member of Search Committee for Chair of the Department of Biochemistry and Molecular Genetics.  
2021-present Research Productivity and Space Committee.

**University of Colorado system:**

2005-present Member of the Faculty Advisory Board for the Biosciences Initiative (BSI).  
2010-2020 Co-Leader, Molecular and Cellular Oncology Program, UCCC.  
2010-present Director, University of Colorado Functional Genomics Facility, UCCC.  
2010-2017 Task Force Member, The BioFrontiers Institute, CU-Boulder.

**Review for Scientific Journals:**

2004-present Scientific reviewer for the peer-reviewed journals:

- Cell
- Science
- Nature
- Genes and Development
- Molecular Cell
- Cancer Cell
- eLIFE
- Nature Review Cancers
- Nature Structure and Molecular Biology
- Nature Communications
- Nature Chemical Biology
- Proceedings of the National Academy of Sciences
- Developmental Cell
- Cell Reports
- Nucleic Acids Research
- Molecular and Cellular Biology
- Cell Death and Differentiation
- EMBO Journal
- EMBO Reports
- Oncogene
- Cancer Research
- Molecular Cancer
- Human Molecular Reproduction
- Molecular Carcinogenesis
- Journal of Biological Chemistry
- Epigenetics
- Genome Biology
- Transcription
- Critical Reviews in Biochemistry and Molecular Biology
- Cell Systems
- Journal of Visualized Experiments
- Cell Reports Medicine
- Frontiers in Immunology

**Grant review activity:**

**National:**

- 2005-2006 The Cancer League of Colorado.  
2008-2015 Ohio Cancer Research Foundation.  
2009 National Science Foundation (NSF), Gene and Genomes Cluster.  
2010-2011 NIH, Molecular Genetics A Study Section (MGA).  
2010 Colorado Clinical and Translational Sciences Institute (CCTS).  
2011-2013 NIH, Cancer Molecular Pathology Study Section (CAMP).  
2011 NSF, Gene Regulation and Epigenetics Cluster.  
2011 HHMI, International Pre-Doctoral Fellowship Program.  
2012 The Butcher Foundation Awards.  
2012 NIH-NCI, Site Visit Reviewer, Cancer and Cell Biology laboratories  
2012 NIH Special Emphasis Panel, Genetic Variation and Evolution Study Section.  
2013-2014 NSF, Genetic Mechanisms Review Cluster.  
2015-present Linda Crnic Institute for Down Syndrome, Grand Challenges Grant Program.  
2016 NSF, Gene Expression Panel.  
2016-2017 The Cancer League of Colorado.  
2016- RNA Bioscience Institute, CU-SOM.  
2017-2018 Golfers Against Cancer.  
2017-2018 Wings of Hope Pancreatic Cancer Research Foundation  
2019 NIH, RM1 Collaborative Program Grant for Multidisciplinary Teams.  
2020 NIH, Ruth L. Kirschstein National Research Service Awards.  
2020 NSF, Directorate of Mathematical and Physical Sciences, Division of Physics.  
2022 NIH, Ad Hoc reviewer for Transformative R01 awards.

**International:**

- 2007 Ireland Research Board.  
2008 Cancer Research United Kingdom.  
2011 Netherlands Organization for Scientific Research.  
2011 Ministerio de Education, Ciencia y Tecnología, Argentina.  
2012 Agence National du Recherche, France.  
2014 Israel Science Foundation.  
2015 Cancer Research United Kingdom.  
2015 Netherlands Organization for Scientific Research.  
2017 Irish National Children's Research Centre.  
2018 Chair, Site Review Committee for Terry Fox Research Institute, Toronto, Canada.  
2019 Diabetes UK.

**Editorial Boards:**

- 2009-2017 *Molecular and Cellular Biology* (American Society for Microbiology).  
2011-present Co-Editor in Chief, *Transcription* (Taylor and Francis).  
2011-present *Cell Reports* (Cell Press).  
2012-present *eLIFE* (HHMI / Welcome Trust / Max Planck Society).  
2015-present *Trends in Cancer* (Cell Press).

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**X. OUTREACH****Science Blogger, The Huffington Post:**

*Cancer is About Relationships, Get Personal.*

[http://www.huffingtonpost.com/joaquin-m-espinosa/personalized-medicine-cancer\\_b\\_1967939.html](http://www.huffingtonpost.com/joaquin-m-espinosa/personalized-medicine-cancer_b_1967939.html)

*Which President will Cure Cancer?*

[http://www.huffingtonpost.com/joaquin-m-espinosa/which-president-will-cure\\_b\\_2019305.html](http://www.huffingtonpost.com/joaquin-m-espinosa/which-president-will-cure_b_2019305.html)

*One Less Cancer to Worry About (if Only)*

[http://www.huffingtonpost.com/joaquin-m-espinosa/one-less-cancer-to-worry-\\_b\\_2634331.html](http://www.huffingtonpost.com/joaquin-m-espinosa/one-less-cancer-to-worry-_b_2634331.html)

*Funding Cancer Research: the Danger of Brightly Colored Ribbons.*

[http://www.huffingtonpost.com/joaquin-m-espinosa/funding-cancer-research\\_b\\_4612230.html](http://www.huffingtonpost.com/joaquin-m-espinosa/funding-cancer-research_b_4612230.html)

*Does the Study of Down Syndrome Hold a Possible Cancer Cure?*

[http://www.huffingtonpost.com/joaquin-m-espinosa/does-study-of-down-syndrome\\_b\\_5979458.html](http://www.huffingtonpost.com/joaquin-m-espinosa/does-study-of-down-syndrome_b_5979458.html)

*Supreme Court Justice for the Chromosome Rights Movement -- the Next Frontier*

[http://www.huffingtonpost.com/joaquin-m-espinosa/supreme-court-justice-for\\_b\\_7694366.html](http://www.huffingtonpost.com/joaquin-m-espinosa/supreme-court-justice-for_b_7694366.html)

*Why we should all celebrate World Down Syndrome Day*

[http://www.huffingtonpost.com/joaquin-m-espinosa/why-we-should-all-celebrate\\_b\\_9513624.html](http://www.huffingtonpost.com/joaquin-m-espinosa/why-we-should-all-celebrate_b_9513624.html)

**The Science Coalition**, participated in promotional short film and panel with members of Congress staff.

<http://innovators.sciencecoalition.org/video.php?id=337>

**Advocacy efforts in Washington D.C.**, including personal meetings with various members of the U.S. Congress to discuss science policy, including Rep. Cathy McMorris-Rodgers (WA), Rep. Jared Polis (CO), Rep. Mike Coffman (CO), Rep. Pete Sessions (TX), Sen. Chris Van Hollen (MD), Sen. Jerry Moran (KS), Sen. Michael Bennet (CO), Rep. Diana DeGette (CO), Sen. Cory Gardner (CO), Rep. Tom Cole (OK), Rep. Mike Simpson (ID), Rep. Steve Womack (AR), Rep. Chuck Fleischmann (TN), Rep. Andy Harris (MD), Rep. Martha Roby (AL), Rep. Jaime Herrera Beutler (WA), Rep. John Moolenaar (MI), Rep. Rosa DeLauro (CT), Rep. Lucille Roybal-Allard (CA), Rep. Barbara Lee (CA), Rep. Mark Pocan (WI), and Rep. Katherine Clark (MA).

**Science Columnist, Down Syndrome World Magazine.**

<http://downsyndromeworld.org>

#### **TV Appearances:**

CCTV America. “*Down syndrome cases studied to reduced solid cancers*”.

<http://www.cctv-america.com/2015/12/31/down-syndrome-cases-studied-to-reduce-solid-cancers>

Denver Channel 7 News. “*Studying Down syndrome to fight cancer: Denver's Crnic Institute looking at genes that battle tumors*”.

Denver Channel 9 News. “*Down syndrome might prevent cancer*”.

Denver Channel 9 News. “*Be Beautiful, Be Yourself Fashion Show*”.

<http://www.9news.com/mobile/article/life/be-beautiful-be-yourself-fashion-show-in-denver/490011254>

Denver CW2. “*Global Down Syndrome Foundation - Be Beautiful Be Yourself Fashion Show*”.

<https://youtu.be/zzey5LFkh30>

Telemundo. “*Dia mundial del Síndrome de Down*”.

[https://www.telemundodenver.com/noticias/Dia-Mundial-del-Sindrome-de-Down\\_TLMD---Denver-477581803.html](https://www.telemundodenver.com/noticias/Dia-Mundial-del-Sindrome-de-Down_TLMD---Denver-477581803.html)

Voice of America. “*Hyper immune system may be key to Down syndrome symptoms*”.

<https://www.voanews.com/episode/hyper-immune-system-may-be-key-down-syndrome-symptoms-4294181>

WFMZ Allentown. “*Health Beat: Life-changer for Down syndrome: Going beyond skin deep*”.

[https://www.wfmz.com/health/health-beat/health-beat-life-changer-for-down-syndrome-going-beyond-skin-deep/article\\_361ec5cc-e178-11ea-a939-7f1a76e45fd7.html](https://www.wfmz.com/health/health-beat/health-beat-life-changer-for-down-syndrome-going-beyond-skin-deep/article_361ec5cc-e178-11ea-a939-7f1a76e45fd7.html)

CBS4 News. “*Should Be Top Priority’: Scientist Says Those With Down Syndrome Should Receive Vaccine Soon*”.

<https://denver.cbslocal.com/2021/02/17/down-syndrome-covid-colorado-denver/>

### **Radio Interviews:**

KGNU – How on Earth. “*Down syndrome and inflammation*”.

<http://howonearthradio.org/archives/6751>

National Public Radio – WBUR Here and Now. “*Individuals With Down Syndrome Should Get Vaccinated For COVID-19 Early, CDC Recommends*”.

<https://www.wbur.org/hereandnow/2021/01/15/down-syndrome-coronavirus>

National Public Radio – KUNC Health. “*Light At The End Of The Pandemic Tunnel Still Dim For Families Of Immunocompromised Children*”.

<https://www.kunc.org/health/2021-03-25/light-at-the-end-of-the-pandemic-tunnel-still-dim-for-families-of-immunocompromised-children>

### **Print and Online Media Coverage:**

BizWest Boulder Valley. “*Findings could impact treatment of cancer*”.

<https://bizwest.com/2013/06/21/findings-could-impact-treatment-of-cancer/#>

CU Boulder Today. “*New University of Colorado study illuminates how cancer-killing gene may actually work*”.

<https://www.colorado.edu/today/2014/05/27/new-university-colorado-study-illuminates-how-cancer-killing-gene-may-actually-work>

Denver Post. “*Collaboration — and fruit flies — suggest potential strategy for colon cancer in CU study*”.

<http://www.denverpost.com/2016/07/29/fruit-flies-colon-cancer/>

CU Cancer Center. “*P53 ‘master switch’ remains top target in gene signaling network controlling cancer suppression*”.

<https://coloradocancerblogs.org/p53-master-switch-remains-top-target-gene-signaling-network-controlling-cancer-suppression/>

Colorado Politics. “*Colorado’s work on Down syndrome research headed to D.C.*”

[https://www.coloradolitics.com/news/colorados-work-on-down-syndrome-research-headed-to-d-c/article\\_65898791-690d-5199-b527-9ac45362643b.html](https://www.coloradolitics.com/news/colorados-work-on-down-syndrome-research-headed-to-d-c/article_65898791-690d-5199-b527-9ac45362643b.html)

Denver Post. “*People with Down syndrome get fewer cancers, but CU researchers need more funding to understand why*”.

<http://www.denverpost.com/2017/10/25/university-of-colorado-anschutz-down-syndrome-cancer-research/>

Westword Denver. “*CU Uncovers a ‘Game-Changing Discovery’ in Down Syndrome*”.

<https://www.westword.com/news/linda-crnic-institute-uncovers-a-game-changing-discovery-in-down-syndrome-9845183>

American Scientist. “*Down Syndrome, the Immune System Disorder*”.

<https://www.americanscientist.org/article/down-syndrome-the-immune-system-disorder>

CU Anschutz Today. “*Star-studded event raises \$2.4 million*”.

<https://news.cuanschutz.edu/news-stories/down-syndrome-event-raises-2-4-million-toward-research-at-cu-anschutz>

CU Anschutz Today. “*CU Anschutz at the forefront of breakthroughs in Down syndrome research*”.

<https://news.cuanschutz.edu/news-stories/cu-anschutz-at-the-forefront-of-breakthroughs-in-down-syndrome-research>

CU Anschutz Today. “*Fashion Show Raises \$2.5 Million for Down Syndrome Research*”.

<https://news.cuanschutz.edu/news-stories/fashion-show-raises-2.5-million-for-down-syndrome-research>

CU Anschutz Today. "New Down Syndrome Study Goes Beyond Skin Deep".

<https://news.cuanschutz.edu/news-stories/new-down-syndrome-study-goes-beyond-skin-deep>

Found in Translation - Colorado Clinical and Translational Sciences Institute. "CU Anschutz is the new epicenter of Down syndrome research in the nation".

<https://cctsi.cuanschutz.edu/news/updates/foundintranslation/cu-anschutz-is-the-new-epicenter-of-down-syndrome-research-in-the-nation>

CU Anschutz Today. "CU Scientists Secure \$1 Million to Explore COVID-19 and Down Syndrome".

<https://news.cuanschutz.edu/news-stories/cu-scientists-secure-1-million-to-explore-covid-19-and-down-syndrome>

CU Anschutz Today. "State of Research Address Heralds Rapid Collective Response to Pandemic".

<https://news.cuanschutz.edu/news-stories/state-of-research-address-heralds-rapid-collective-response-to-pandemic>

CU Anschutz Today. "CU Anschutz COVIDome Project Aimed at Speeding Lifesaving Treatment".

<https://news.cuanschutz.edu/news-stories/cu-anschutz-covidome-project-aimed-at-speeding-lifesaving-treatment>

CU Cancer Center. "CU Cancer Center Researcher Reveals New Effects of Oxygen Deprivation in Cancer Cells".

<https://news.cuanschutz.edu/cancer-center/oxygen-deprivation-cancer-cells>

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## XI. PATENTS

Patent US20030228627 A1: Assay for p53 function in cells, Beverly M. Emerson and Joaquín M. Espinosa.

U.S. Provisional Patent Application Serial No. 62/992,855 entitled 'JAK1 Inhibition For Modulation Of Overdrive Anti-Viral Response To COVID-19'.

U.S. Provisional Patent Application Serial No. 62/993,749 entitled 'Compounds and Methods for Inhibition or Modulation of Viral Hypercytokinemia'.

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