Curriculum Vitae

Ali H. Brivanlou

Robert & Harriet Heilbrunn Professor
Head of Laboratory of Stem Cell Biology and Molecular Embryology
The Rockefeller University

Professor Adjunct
Columbia Graduate School of Architecture
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PERSONAL INFORMATION

Born on July 6th, 1959. Tehran, Iran. USA citizenship

CONTACT DETAILS

The Rockefeller University
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EDUCATION

1991 – 1994	Postdoctoral training, Dr. Douglas Melton Laboratory, Department of Biochemistry and Molecular Biology, Harvard University
1990 – 1991	Postdoctoral training, Dr. Richard Harland Laboratory, Department of Biochemistry and Molecular Biology, UC Berkeley.
1985 – 1990	Ph.D. in Molecular Biology, Dr. Richard Harland Laboratory, Department of Biochemistry and Molecular Biology, UC Berkeley.
1976 – 1982	MS Biochemistry, Université des Sciences et Techniques du Languedoc, Montpellier, France.

PROFESSIONAL EXPERIENCE

2000 – present	Robert & Harriet Heilbrunn Professor, Head of Laboratory of Stem Cell Biology and Molecular Embryology, The Rockefeller University.
2012 – present	Adjunct Professor, Columbia Graduate School of Architecture, Columbia University
1997 – 2000	Associate Professor, Head of Laboratory, Molecular Embryology, The Rockefeller University.

1994 – 1997 Assistant Professor, Head of Laboratory, Molecular Embryology, The Rockefeller University.

1983 – 1985 Research Scientist, International Genetic Engineering Inc. (INGENE), Santa Monica, California.

1982 – 1983 Research Assistant, Molecular Biology Institute, University of California, Los Angeles.

RESEARCH FUNDING AND GRANTS

2014 – 2015 Robertson Foundation. *Generation of autologous skin for tissue grafts and patches*. Robertson Therapeutics Development Fund Grant

2013 – 2018 Tri-SCI Starr Foundation. *The Rockefeller University Human Pluripotent Stem Cell Core Facility*. Tri-Institutional Stem Cell Initiative Grant.

2013 – 2017 New York State Department of Health (NYSDOH), New York State Stem Cell Science (NYSTEM). *Molecular Analysis of Embryonic Stem Cells*. Investigator Initiated Grant C028128

2013 – 2015 NIH R21. National Institute of Child and Human Development. *Molecular Analysis of Embryonic Stem Cells*. NIH R21 HD072369

2013 – 2015 Tri-SCI Starr Foundation. *Generation of an in vitro attachment platform for mouse and human blastocysts to study molecular and cellular aspects of post-implantation differentiation*. Tri-Institutional Stem Cell Initiative Grant # 2013-026.

2013 – 2015 Tri-SCI Starr Foundation. *Regulating hematopoietic stem cell quiescence via temporal encoding of TGFβ signals*. Tri-Institutional Stem Cell Initiative Grant # 2013-030.

2012 – 2016 NIH R01. National Institute of General Medical Sciences. *Dynamic readout of TGFβ signaling and modeling of cell fate specification in human embryonic stem cells*, NIH R01 GM101653

2011 – 2015 NIH R01. National Institute of General Medical Sciences. *Analysis of TGFβ-regulated microRNAs in hESC stemness and differentiation*. NIH R01 GM097615

2011 – 2013 Cure Huntington's Disease Initiative (CHDI). *Functional characterization of wildtype HD proteins during Xenopus embryogenesis, and human telencephalic development.* Single PI Research Grant.

2009 – 2014 New York State Department of Health (NYSDOH), New York State Stem Cell Science (NYSTEM). *Shared Facilities and Resources for Stem Cell Research at The Rockefeller University and Weill Cornell Medical College*. Collaborative Grant C024180

2007 – 2010 Tri-SCI Starr Foundation, *The Rockefeller University Derivation Core Facility*. Tri-Institutional Stem Cell Initiative Grant.

2007 – 2009 Tri-SCI Tri-Institutional Stem Cell Initiative: *Derivation of hESC from Fanconi Anemia Embryos*. Collaborator Dr. Arleen Auerbach (The Rockefeller University). Tri-Institutional Stem Cell Initiative Grant.

2007 – 2009 Tri-SCI Tri-Institutional Stem Cell Initiative: *Chemical Screen of small compounds involved in maintenance of pluripotency in hESCs*. Collaborator Dr. Tarun Kapoor (The Rockefeller University). Tri-Institutional Stem Cell Initiative Grant.

2007 – 2009 Tri-SCI Tri-Institutional Stem Cell Initiative: *High throughput chemical screen human embryonic stem cells*. Collaborator Dr. Lorenz Studer (Memorial Sloan Kettering Cancer Center). Tri-Institutional Stem Cell Initiative Grant.

2007 – 2009	Tri-SCI Tri-Institutional Stem Cell Initiative: *Monitoring self-renewal in induced pluripotent cells and cancer cells*. Collaborator Dr. Anthony Brown (Memorial Sloan Kettering Cancer Center). Tri-Institutional Stem Cell Initiative Grant.
2004 – 2010	NIH R01. National Institute of General Medical Sciences. Development and Aging. *Molecular Analysis of Human ES Cells.* NIH R01 GM073379-06
2004 – 2006	McKnight Endowment Fund for Neuroscience*. Molecular Basis of neural induction in Human Embryonic Stem Cells*.
2003 – 2006	Juvenile Diabetes Research Foundation, Program Project Grant, *Molecular Basis of Stemness in HESCs and its relevance to Pancreatic Development.* (Three years support).
2002 – 2008	The Rockefeller University. *Basic Research on Human Embryonic stem cells*. (Six years support).
2002 – 2007	NIH R01. National Institute of General Medical Sciences. *TGF-ß Signaling in Vertebrate Mesoderm Induction*. NIH R01 GM066977
2000 – 2005	National Institute of General Medical Sciences. NIH/NIGMS Training grant for Graduate Students (Dr. Günter Blobel PI).
1999 – 2000	Millennium Pharmaceuticals Inc. Research Grant.
1998 – 2003	NIH R01. National Institute of General Medical Sciences. *Molecular Basis of Vertebrate Lens Induction*. NIH R01 grant from the Eye Institute.
1996 – 2009	NIH R01. National Institute of Child and Human Development, *Molecular Basis of Neural Development in Xenopus.* NIH R01 HD032105-11.

HONORS, NATIONAL AND INTERNATIONAL AWARDS

2012	The Rockefeller University Teaching Award
2000	Ruth and Milton Steinbach Fund
1997	The John Merck Award
1996	The Presidential Early Career Award for Scientists and Engineers
1996	Wilson S. Stone Memorial Award
1996	The McKnight Scholar Award
1996	The Japan award
1996	The Klingenstein Award
1995	The Searle Scholar Award
1994	The Irma T. Hirschl-Monique Weill-Caulier Trust Career Scientist Award
1994	The NIH, James A. Shannon Director's Award
1991	NIH Postdoctoral Fellowship.

TEACHING

2009 – present	Co-organizer, *Stem Cells in Tissue Morphogenesis and Cancer,* a course for graduate and MD-Ph.D. students, The Rockefeller University.

2004 – 2006	MSKCC Stem Cell course.
1994 – present	Co-lecturer, *Eukaryotic Gene Expression* for graduate and MD-Ph.D. students, The Rockefeller University.
	Co-lecturer, *The Development of the Central Nervous System* for graduate and MD-Ph.D. students, The Rockefeller University.
	Co-lecturer, *Embryology course for medical students*, Cornell Medical School.
	Co-lecturer, *Developmental Biology course for graduate and MD-Ph.D. students*, The Rockefeller University.
	Co-lecturer, *Developmental Neurobiology course*, Columbia Medical School, College of Physicians and Surgeons.

OTHER SCIENTIFIC AFFILIATION

2014 – present	Board Member, Research Foundation to Cure AIDS, Inc.
2013 – present	Member, Scientific Advisory Council Pershing Square Sohn Cancer Research Alliance (PSSCRA), New York.
2012 – present	Member, Postdoctoral Awards Review Committee, The Rockefeller University.
2008 – 2011	Senior Faculty Representative, Academic Council, The Rockefeller University.
2007 – present	Director, Tri-Institutional Human Embryonic Stem Cell Derivation Unit, New York (Memorial Sloan Kettering, Cornell Medical School, The Rockefeller University).
2005 – present	Chair, Steering committee for the establishment of the Tri-institutional Stem Cell Institute, New York (Memorial Sloan Kettering, Cornell Medical School, The Rockefeller University).
2005 – present	Member, P-20 Study Section for Exploratory Grants for Human Embryonic Stem Cell Research, Center for Scientific Review, NIH.
2005 – present	Member, Grants Review Working Group, California Stem Cell Research and Cures Initiative, California Institute for Regenerative Medicine (CIRM).
2004 – present	Member, DEV2 study section, Biology of Development and Aging, Center for Scientific Review, NIH.
2004 – 2006	Member, Genomics Resource Center Committee, The Rockefeller University.
2004 – 2005	Member, Bioethics Committee, The Rockefeller University.
2003 – 2008	Member, Steering committee for the creation of the Tri-institutional Stem Cell Institute, New York (Memorial Sloan Kettering, Cornell Medical School, The Rockefeller University).
2002 – 2003	Organizer, The New York Academy of Sciences and The Rockefeller University Workshop: “Cellular and molecular standards for the study of human embryonic stem cells.”
2002	Organizer, NIH Workshop: Setting Priorities for Functional Molecular Neuroanatomy in the Post-Genomic Era. Laguna Beach, California.
2001 – 2002	Member, NIH study sections CDF4, CDF5 and Genome Study Sections.
2001 – present	Member, The Harvey Society, The Rockefeller University.
2000 – 2001	Chairman, NICHD and NIH Workshop: *Identifying Genetic and Genomic Need for* Xenopus *Research*.

1998 – 2005 Chairperson, Scientific Advisory Board, Protein/DNA Sequencing Facility, The Rockefeller University.

1998 – 2002 Member, Faculty Nominating Committee. The Rockefeller University.

1998 – 2002 Member, Graduate Recruitment Committee, The Rockefeller University.

1998 – 2000 Consultant, Millennium Pharmaceuticals Inc., Cambridge, Massachusetts.

1995 – 1999 Junior Faculty Representative, Academic Council, The Rockefeller University.

EDITORIAL BOARDS OF SCIENTIFIC JOURNALS

2009 – present Member, Editorial Board of *PLOS1*

1999 – present Member, Editorial Board of *Developmental Biology*

1999 – present Member, Editorial Board of *Mechanisms of Development*

1999 – 2008 Member, Editorial Board of *Development*

PATENTS

1. United States Application Number 60/448,257, entitled *Nucleotide and protein sequence of Coco genes and methods based thereon* filed on February 19, 2003 by Ali H. Brivanlou.
2. United States Application Number 60/531,250, entitled *Maintenance of embryonic stem cells by the GSK-3 inhibitor 6-Bromoindirubin-3'-Oxime* filed on December 19, 2003 by Ali H. Brivanlou.
3. United States Application Number 60/219,658, entitled *Assays and materials for embryonic gene expression* filed on July 21, 2000 by Ali H. Brivanlou.
4. United States Patent Application Number 09/306,042, entitled *Lens transcriptional control elements and methods of use thereof* filed on May 7, 1998 by Ali H. Brivanlou.
5. United States Patent Application Number 09/755,325, entitled *Translation initiation factor 4AIII, and methods of use thereof* filed June 1, 1998 by Ali H. Brivanlou.
6. United States Patent Application Number 09/070,707, entitled *A vertebrate lens produced by selectively inducing lens development in an ectodermal cell and methods of use thereof* filed August 23, 2000 by Ali H. Brivanlou.
7. United States Patent Application Serial Number 09/344,880, entitled *Peptide growth factor having epidermal inducing activity* filed October 30, 2000 by Ali H. Brivanlou.
8. United States Patent Number 5,952,213 entitled *A novel SRC-family kinase and methods of use thereof* by Ali H. Brivanlou issued September 14, 1999.
9. United States Patent Number WO 95/10611 entitled *Methods of inducing and maintaining neuronal cell*, by Douglas A. Melton and Ali H. Brivanlou, issued April 20, 1995.

ART FORUMS

2010 - present Advisory Committee Member

dOCTUMENTA(13), contemporary art.

2013 BIO-DESIGN. Embryology, Architecture, and Innovation.

Columbia University School of Architecture

2013 Cameo appearance in the feature film “The Fly Room” portraying scientist Edmond Wilson (Columbia University, 1927). Director Alexis Gambis

2012 Keynote presentation, Kassel, Germany: "The Reversal of Time"

dOCTUMENTA(13), contemporary art.

2005 World Exposition: “BioTechnology and a New Global Society”

USA Pavilion, Aichi, Japan, March 25 – September 25.

ESI design Edwin Schlosberg.

2004. Exhibition: “The Art of Science”

International Museum of Photography, New York, NY, March 12 – May 30.

PUBLICATIONS

1. Brivanlou, A. H., and Harland, R. M. (1989). Expression of an Engrailed-Related Protein Is Induced in the Anterior Neural Ectoderm of Early Xenopus Embryos. *Development.* 106(3), 611-617. PubMed PMID: 2574664
2. Condie, B. G., Brivanlou, A. H., and Harland, R. M. (1990). Most of the Homeobox-Containing Xhox 36 Transcripts in Early Xenopus Embryos Cannot Encode a Homeodomain Protein. *Molecular and Cellular Biology.* 10(7), 3376-3385. PubMed PMID: 1972542
3. Brivanlou, A. H., Frank, D., Bolce, M. E., Brown, B. D., Sive, H. L., and Harland, R. M. (1990). Localization of Specific mRNAs in Xenopus Embryos by Whole-Mount in Situ Hybridization. *Development.* 110(2), 325-330. PubMed PMID: 1723941
4. Brivanlou, A. H., Stewart, R. M., and Harland, R. M. (1990). Region-Specific Neural Induction of an Engrailed Protein by Anterior Notochord in Xenopus. *Science.* 250(4982), 800-802. PubMed PMID: 1978411
5. Vize, P. D., Melton, D. A., Brivanlou, A. H., and Harland, R. M. (1991). Assays for Gene Function in Developing Xenopus Embryos. *Methods in Cell Biology.* 36, 367-387. PubMed PMID: 1811145
6. Brivanlou, A. H., de la Torre, J. R., Holt, C., and Harland, R. M. (1991). Cephalic Expression and Molecular Characterization of Xenopus En-2. *Development.* 111(3), 715-724. PubMed PMID: 1679005
7. Brivanlou, A. H., Wright, D. A., and Melton, D. A. (1992). Embryonic Expression and Functional Analysis of a Xenopus Activin Receptor. *Developmental Dynamics: An Official Publication of the American Association of Anatomists.* 194(1), 1-11. doi: 10.1002/aja.1001940102. PubMed PMID: 1384808
8. Bolce, M. E., Brivanlou, A. H., Kushner, P. D., and Harland, R. M. (1992). Ventral Ectoderm of Xenopus Forms Neural Tissue, Including Hindbrain, in Response to Activin. *Development.* 115(3), 681-688. PubMed PMID: 1425347

9. Brivanlou, A. H., Mann, R. W., and Harland, R. M. (1992). A Protein Expressed in the Growth Cones of Embryonic Vertebrate Neurons Defines a New Class of Intermediate Filament Protein. *Neuron.* 9(3), 417-428. PubMed PMID: 1524825

10. Brivanlou, A. H., and Melton, D. A. (1992). A Truncated Activin Receptor Inhibits Mesoderm Induction and Formation of Axial Structures in Xenopus Embryos. *Nature.* 359(6396), 609-614. doi: 10.1038/359609a0. PubMed PMID: 1328888

11. Dohrmann, C. E., Brivanlou, A. H., Thomsen, G. H., Fields, A., Woolf, T. M., and Melton, D. A. (1993). Expression of Activin mRNA During Early Development in Xenopus Laevis. *Developmental Biology.* 157(2), 474-483. doi: 10.1006/dbio.1993.1150. PubMed PMID: 8500654

12. Bolce, M. E., Brivanlou, A. H., and Harland, R. M. (1993). XFKH2, a Xenopus HNF-3 Alpha Homologue, Exhibits Both Activin-Inducible and Autonomous Phases of Expression in Early Embryos. *Developmental Biology.* 160(2), 413-423. doi: 10.1006/dbio.1993.1317. PubMed PMID: 8253274

13. Brivanlou, A. H., Kelly, O. G., and Melton, D. A. (1994). Follistatin, an Antagonist of Activin, Is Expressed in the Spemann Organizer and Displays Direct Neuralizing Activity. *Cell.* 77(2), 283-295. PubMed PMID: 8168135

14. Brivanlou, A. H., and Melton, D. A. (1994). Inhibition of Activin Receptor Signaling Promotes Neuralization in Xenopus. *Cell.* 77(2), 273-281. PubMed PMID: 8168134

15. Brivanlou, A. H., and Thomsen, G. H. (1995). Ventral Mesodermal Patterning in Xenopus Embryos: Expression Patterns and Activities of BMP-2 and BMP-4. *Developmental Genetics.* 17(1), 78-89. doi: 10.1002/dvg.1020170109. PubMed PMID: 7554498

16. Wilson, P. A., and Brivanlou, A. H. (1995). Induction of Epidermis and Inhibition of Neural Fate by Bmp-4. *Nature.* 376(6538), 331-333. doi: 10.1038/376331a0. PubMed PMID: 7630398

17. Cox, W. G., and Brivanlou, A. H. (1995). Caudalization of Neural Fate by Tissue Recombination and bFGF. *Development.* 121(12), 4349-4358. PubMed PMID: 8575335

18. Henry, G. L., Brivanlou, I. H., Kessler, D. S., Brivanlou, A. H., and Melton, D. A. (1996). TGF-β Signals and a Pattern in Xenopus Laevis Endodermal Development. *Development.* 122(3), 1007-1015. PubMed PMID: 8631246

19. Weinstein, D. C., Rahman, S. M., Ruiz, J. C., and Brivanlou, A. H. (1996). Embryonic Expression of Eph Signalling Factors in Xenopus. *Mechanisms of Development.* 57(2), 133-144. PubMed PMID: 8843391

20. Honoré, E., and Brivanlou, A. H. (1996). In Vivo Evidence for Trigeminal Nerve Guidance by the Cement Gland in Xenopus. *Developmental Biology.* 178(2), 363-374. PubMed PMID: 8812135

21. Lagna, G., Hata, A., Brivanlou, A. H., and Massagué, J. (1996). Partnership between DPC4 and SMAD Proteins in TGF-β Signalling Pathways. *Nature.* 383(6603), 832-836. doi: 10.1038/383832a0. PubMed PMID: 8893010

22. Honoré, É., and Brivanlou, A. H. (1997). L'induction Neurale Chez Les Vertébrés: Le Cerveau Par Défaut. *Medecine et Science, 13*, 192-200.

23. Weinstein, D., Chang, C., Lagna, G., Suzuki, A., Wilson, P., and Brivanlou, A. H. (1997). Neural Induction in the Frog Xenopus Laevis *Inhibin, Activin and Follistatin* (pp. 214-219): Springer.

24. Brivanlou, A. H., and Melton, D. (1997b). Vertebrate Neural Induction. *Annual Review of Neuroscience.* 20, 43-60. doi: 10.1146/annurev.neuro.20.1.43. Review. PubMed PMID: 9056707

25. Brivanlou, A. H., and Melton, D. (1997a). Vertebrate Embryonic Cells Will Become Nerve Cells Unless Told Otherwise. *Cell.* 88(1), 13-17. Review. PubMed PMID: 9019398

26. Chang, C., Wilson, P. A., Mathews, L. S., and Brivanlou, A. H. (1997). A Xenopus Type I Activin Receptor Mediates Mesodermal but Not Neural Specification During Embryogenesis. *Development.* 124(4), 827-837. PubMed PMID: 9043064

27. Weinstein, D. C., and Brivanlou, A. H. (1997). Neural Induction in Xenopus Laevis: Evidence for the Default Model. *Current Opinion in Neurobiology.* 7(1), 7-12. PubMed PMID: 9039789

28. Suzuki, A., Chang, C., Yingling, J. M., Wang, X. F., and Brivanlou, A. H. (1997). Smad5 Induces Ventral Fates in Xenopus Embryo. *Developmental Biology.* 184(2), 402-405. doi: 10.1006/dbio.1997.8548. PubMed PMID: 9133445

29. Hoodless, P. A., and Brivanlou, A. H. (1997). Inhibitory Control of Neural Differentiation in Mammalian Cells. *Development Genes and Evolution.* 207(1), 19-28. doi: 10.1007/s004270050088. PubMed PMID: 20607477

30. Wilson, P. A., and Brivanlou, A. H. (1997). Vertebrate Neural Induction: Inducers, Inhibitors, and a New Synthesis. *Neuron.* 18(5), 699-710. PubMed PMID: 9182796

31. Altmann, C. R., Chow, R. L., Lang, R. A., and Brivanlou, A. H. (1997). Lens Induction by Pax-6 in Xenopus Laevis. *Developmental Biology.* 185(1), 119-123. doi: 10.1006/dbio.1997.8573. PubMed PMID: 9169055

32. Wilson, P. A., Lagna, G., Suzuki, A., and Brivanlou, A. H. (1997). Concentration-Dependent Patterning of the Xenopus Ectoderm by BMP4 and Its Signal Transducer Smad1. *Development.* 124(16), 3177-3184. PubMed PMID: 9272958

33. Suzuki, A., Ueno, N., and Brivanlou, A. H. (1997). Xenopus Msx1 Mediates Epidermal Induction and Neural Inhibition by BMP4. *Development.* 124(16), 3037-3044. PubMed PMID: 9272945

34. Suzuki, A., Kaneko, E., Ueno, N., and Brivanlou, A. H. (1997). Regulation of Epidermal Induction by Bmp2 and Bmp7 Signaling. *Developmental Biology.* 189(1), 112-122. PubMed PMID: 9281341

35. Weinstein, D. C., Honoré, E., and Brivanlou, A. H. (1997). Epidermal Induction and Inhibition of Neural Fate by Translation Initiation Factor 4AIII. *Development.* 124(21), 4235-4242. PubMed PMID: 9334272

36. de la Torre, J. R., Höpker, V. H., Ming, G. L., Poo, M. M., Tessier-Lavigne, M., Brivanlou, A. H., and Holt, C. E. (1997). Turning of Retinal Growth Cones in a Netrin-1 Gradient Mediated by the Netrin Receptor Dcc. *Neuron.* 19(6), 1211-1224. PubMed PMID: 9427245

37. Lagna, G., and Brivanlou, A. H. (1998). Use of Dominant Negative Constructs to Modulate Gene Expression. *Cellular and Molecular Procedures in Developmental Biology.* 36, 75-98. Review. PubMed PMID: 9342522

38. Hata, A., Lagna, G., Massagué, J., and Brivanlou, A. H. (1998). Smad6 Inhibits BMP/Smad1 Signaling by Specifically Competing with the Smad4 Tumor Suppressor. *Genes & Development, 12*(2), 186-197. PubMed PMID: 9436979

39. Chang, C., and Brivanlou, A. H. (1998a). Neural Crest Induction by Xwnt7B in Xenopus. *Developmental Biology.* 194(1), 129-134. doi: 10.1006/dbio.1997.8820. PubMed PMID: 9473337

40. Mailhos, C., André, S., Mollereau, B., Goriely, A., Brivanlou, A. H., and Desplan, C. (1998). Drosophila Goosecoid Requires a Conserved Heptapeptide for Repression of Paired-Class Homeoprotein Activators. *Development.* 125(5), 937-947. PubMed PMID: 9449676

41. Williams, S. C., Altmann, C. R., Chow, R. L., Brivanlou, A. H., and Lang, R. A. (1998). A Highly Conserved Lens Transcriptional Control Element from the Pax-6 Gene. *Mechanisms of Development.* 73(2), 225-229. PubMed PMID: 9622640

42. Casellas, R., and Brivanlou, A. H. (1998). Xenopus Smad7 Inhibits Both the Activin and BMP Pathways and Acts as a Neural Inducer. *Developmental Biology.* 198(1), 1-12. PubMed PMID: 9640328

43. Chang, C., and Brivanlou, A. H. (1998b). Cell Fate Determination in Embryonic Ectoderm. *Journal of Neurobiology.* 36(2), 128-151. Review. PubMed PMID: 9712300

44. Weinstein, D. C., Marden, J., Carnevali, F., and Brivanlou, A. H. (1998). FGF-Mediated Mesoderm Induction Involves the Src-Family Kinase Laloo. *Nature.* 394(6696), 904-908. doi: 10.1038/29808. PubMed PMID: 9732875

45. Brivanlou, A. H. (1998). Should the Master Regulator Rest in Peace? *Nature Genetics.* 20(2), 109-110. doi: 10.1038/2402. PubMed PMID: 9771697

46. Brivanlou, A. H. (1999). Xenopus. *Encyclopedia of Molecular Biology*, 2793-2803.

47. Reissmann, E., and Brivanlou, A. H. (1999). Neuronal Subtype Identity Regulation. *eLS*.

48. Weinstein, D. C., and Brivanlou, A. H. (1999). Neural Induction. *Annual Review of Cell and Developmental Biology.* 15, 411-433. doi: 10.1146/annurev.cellbio.15.1.411. Review. PubMed PMID: 10611968

49. Lagna, G., Carnevali, F., Marchioni, M., and Brivanlou, A. H. (1999). Negative Regulation of Axis Formation and Wnt Signaling in Xenopus Embryos by the F-Box/WD40 Protein B TrCP. *Mechanisms of Development.* 80(1), 101-106. PubMed PMID: 10096067

50. Lagna, G., and Brivanlou, A. H. (1999). A Molecular Basis for Smad Specificity. *Developmental Dynamics: An Official Publication of the American Association of Anatomists.* 214(3), 269-277. PubMed PMID: 10090153

51. Chang, C., and Brivanlou, A. H. (1999). Xenopus GDF6, a New Antagonist of Noggin and a Partner of Bmps. *Development.* 126(15), 3347-3357. PubMed PMID: 10393114

52. Chow, R. L., Altmann, C. R., Lang, R. A., and Brivanlou, A. H. (1999). Pax6 Induces Ectopic Eyes in a Vertebrate. *Development.* 126(19), 4213-4222. PubMed PMID: 10477290

53. Altmann, C. R., Bell, E., and Brivanlou, A. H. (2000). Genomics and Embryology in Amphibians. *Genome Biology.* 1(5), 4022.4022.

54. Hata, A., Seoane, J., Lagna, G., Montalvo, E., Brivanlou, A. H., and Massagué, J. (2000). OAZ Uses Distinct DNA- and Protein-Binding Zinc Fingers in Separate BMP-Smad and Olf Signaling Pathways. *Cell.* 100(2), 229-240. PubMed PMID: 10660046

55. Suzuki, A., and Brivanlou, A. H. (2000). Xenopus Embryonic E2F Is Required for the Formation of Ventral and Posterior Cell Fates During Early Embryogenesis. *Molecular Cell.* 5(2), 217-229. PubMed PMID: 10882064

56. Chang, C., and Brivanlou, A. H. (2000). A Post-Mid-Blastula Transition Requirement for TGF-β Signaling in Early Endodermal Specification. *Mechanisms of Development.* 90(2), 227-235. PubMed PMID: 10640706

57. Brivanlou, A. H. (2000). La Morphogenèse Du Système Nerveux Chez Les Vertébrés. *Medecine et Science, 16*, 150-158.

58. Eggen, B. J., and Brivanlou, A. H. (2001). Bmp Antagonists and Neural Induction. *eLS*.

59. Altmann, C. R., and Brivanlou, A. H. (2001). Neural Patterning in the Vertebrate Embryo. *International Review of Cytology, 203*, 447-482. Review. PubMed PMID: 11131523

60. Muñoz-Sanjuán, I., and Brivanlou, A. H. (2001). Early Posterior/Ventral Fate Specification in the Vertebrate Embryo. *Developmental Biology.* 237(1), 1-17. doi: 10.1006/dbio.2001.0350

61. Zhang, Y., Chang, C., Gehling, D. J., Brivanlou, A. H., and Derynck, R. (2001). Regulation of Smad Degradation and Activity by Smurf2, an E3 Ubiquitin Ligase. *Proceedings of the National Academy of Sciences.* 98(3), 974-979. PubMed PMID: 11158580

62. Weinstein, D. C., and Brivanlou, A. H. A. (2001). Src Family Kinase Function During Early Xenopus Development. *Developmental Dynamics: An Official Publication of the American Association of Anatomists.* 220(2), 163-168. PubMed PMID: 11169849

63. Chang, C., Holtzman, D. A., Chau, S., Chickering, T., Woolf, E. A., Holmgren, L. M., Bodorova, J., Gearing, D. P., Holmes, W. E., and Brivanlou, A. H. (2001). Twisted Gastrulation Can Function as a BMP Antagonist. *Nature.* 410(6827), 483-487. doi: 10.1038/35068583. PubMed PMID: 11260717

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