

Santiago Munné, Ph.D.
CURRICULUM VITAE

Personal

Name: Santiago Munné
Date of birth: 14 October 1962
Nationalities: USA and Spain

Education

1987: "Licenciado en Ciencias Biologicas" (Equivalent to a Master in Science). University of Barcelona, Barcelona, Spain

1991: Ph.D. in Human Genetics. University of Pittsburgh, Pennsylvania, USA.

Past and present appointments

- CEO of Reprogenetics: From 12/15/2014 to date
- CSO of Recombine (www.recombine.com): From 1/2012 – 12/2013
- President of Reprogenetics (www.reprogenetics.com): From 12/31/01 to 12/15/2014.
- Laboratory Director at Reprogenetics, 3 Regent Str., suite 301, Livingston, NJ-07039: From 12/31/01 to 12/2012.
- Director Preimplantation Genetics at The Institute for Reproductive Medicine and Science, Saint Barnabas Medical Center, 101 Old Shorts Hills road, suite 501, West Orange, NJ-07052: from 5/1/95 to 12/31/03.
- Instructor of Genetics in OB/GYN at Cornell University Medical College, Department of OB/GYN, 1300 York Ave, New York, N.Y-10021: from 7/1/93 to 4/30/95.
- Postdoctoral Associate in OB/GYN at Cornell University Medical College, Department of OB/GYN, 1300 York Ave, New York, N.Y-10021: From 1/10/91 to 6/30/93.
- Research Assistant and Ph.D. student at The West Penn Hospital. Department of Medical Genetics. 4800 Friendship Ave., Pittsburgh, PA-15224: From 8/31/88 to 9/30/91.

Entrepreneurial activity

Founded *Recombine* in 1/2012 with Alex Bisignano and Kelly Ketterson.
Founded *Reprogenetics* in 12/2001 with Jacques Cohen and David Sable.

Clinical experience and Accreditations

- Accredited Laboratory Director in the category of Genetic Testing, modality molecular and modality cytogenetics for Preimplantation Genetic Diagnosis. New York State Department of Health. CQ code: MUNNS1.
- 2001-to date: Laboratory Director of Preimplantation Genetic Diagnosis, Reprogenetics, LLC
- 1995-2003: Laboratory Director of Preimplantation Genetic Diagnosis at The Institute for Reproductive Medicine and Science, Saint Barnabas Medical Center, 101 Old Shorts Hills road, suite 501, West Orange, NJ-07052.
- 1993-1995: Lab supervisor performing clinical Preimplantation Genetic Diagnosis at Cornell University Medical College. Department of OB/GYN, 1300 York Ave, New York, N.Y-10021.

Honors, Prizes, Grants

- **Prize paper** of the Society for Assisted Reproductive Technology. 50th Annual Meeting of The American Fertility Society (San Antonio, TX, 5-10 Nov, 1994). Paper: Grifo J, Rosenwaks Z, Cohen J, Munné S

- (1994) Implantation failure of morphologically normal human embryos is due largely to aneuploidy. *Fertil Steril*. 62:Suppl: S2 (O-003).
- **Prize paper** of the Society for Assisted Reproductive Technology. 51st Annual Meeting of The American Fertility Society (Seattle, WA, 7-12 Oct, 1995). Paper: Benadiva CA, Munné S, Rosenwaks Z (1995) Chromosome 16 aneuploidy increases significantly with maternal age in preimplantation human embryos. *Fertil. Steril*. 64: Suppl: S2 (O-003).
 - General Program **Prize paper** of the American Society for Reproductive Medicine. 52d Annual Meeting (Boston, MA, 4 Nov 1996). Paper: Munné S, Scott R, Berg P, Cohen J. first pregnancies after polar body biopsy for testing of chromosome translocations. *Fertil. Steril*. 66: Suppl: S1 (O-001)
 - Awarded **NIH grant**, SBIR type number: 1R43 HD35010-01A1 to ART Institute of NY and NJ, on July 1997. Principal investigator: Santiago Munné. Title: "Screening of aneuploidy in human oocytes".
 - Program Prize poster of the American Society for Reproductive Medicine. 53rd Annual Meeting (Cincinnati, Oct 18-22, 1997). Paper: Estop AM, Vandermark KK, Munné S, Aston C, Cieply KM. Sperm morphology and Chromosome aneuploidy in men with infertility as determined by fluorescence in situ hybridization (FISH). *Fertil. Steril*. 68: Suppl: S208 (P-242)
 - **Prize paper** of the Society for Assisted Reproductive Technology. 16th World congress on Fertility and Sterility/54th Annual Meeting of The American Fertility Society (San Francisco, CA, 7-12 Oct, 1998). Paper: Munné S, et al. (1998) Decrease in spontaneous abortions after genetic diagnosis of aneuploidy at the 8-cell stage. *Fertil. Steril*. S56 (O-151)
 - Article designated as outstanding contribution by the journal *Human Reproduction*. Paper: Munné S, Magli C, Cohen J, Morton P, Sadowy S, Gianaroli L, Tucker M, Márquez C, Sable D, Ferraretti AP, Massey JB, Scott R (1999) Positive outcome after preimplantation diagnosis of aneuploidy in human embryos. *Human Reprod*, 14:2191-2199
 - Awarded **NIH grant**, SBIR (1 R44 HD44313-01) to Reprogenetics on July 2003. Principal investigator: Santiago Munné. Title: "Full karyotype single cell interphase analysis".
 - Awarded **NIH grant**, SBIR (2 R44 HD35010-02) to Reprogenetics, LLC on July 2003: Principal investigator: Dagan Wells, Title: "Single cell analysis of chromosome abnormalities"
 - Award of Excellence. Resolve of New Jersey. June 2004
 - **Prize paper** of the Society for Assisted Reproductive Technology. Conjoint Annual Meeting of The American Society of Reproductive Medicine and Canadian Fertility and Andrology Society (Montreal, Canada, 15-19 Oct, 2005). Paper: Derivation of Human embryonic stem cells from chromosomally abnormal embryos that exhibit self correction in culture. MC Vemuri, S Munné, P Colls, MG Bermudez, J Garrisi, J Cohen. *Fertil Steril* 2005, 84:S108 (O-263)
 - Article "Munné et al. *Hum Reprod* 1999;14:2191-2199" included in the book "A decade of Success in ART: **The most-cited research articles on assisted reproduction treatments from the last 10 years**" Editors: Bjorn Oddens, Bill Ledger. Excerpta Medica. Amsterdam 2006.
 - **Prize Poster award** of 2007 New England Fertility Society - Pacific Coast Reproductive Society Exchange for the work "Evaluation of comparative genomic hybridization for the cytogenetic analysis of human blastocysts. Elpida Fragouli, Michelle Lenzi, Tony Anderson, Rik Ross, Santiago Munné, Dagan Wells". Mystic, CT on May 4-5, 2007
 - Prize paper candidate American Society for Reproductive Medicine. 65th Annual meeting (Atlanta, GA. October 17-21, 2009): S. Munné, Gutierrez-Mateo C, Sanchez Garcia K, Ketterson K, Prates R, Keningsberg D. Validation of microarray CGH for PGD by FISH reanalysis. *Fertil. Steril* 92: suppl. S2 (O-6).
 - The magazine "Focus on Reproduction" edited by ESHRE (May 2010) mentions as the top ten classic papers in "reproductive biology" as its number 5 the article of: Munné S, Alikani M, Tomkin G, Grifo J, Cohen J (1995) Embryo morphology, developmental rates and maternal age are correlated with

chromosome abnormalities. *Fertil.Steril.*, 64:382-391

- American Society of Reproductive Medicine 2011 **Star Award**: awarded to reproductive health professionals who have presented for 10 or more years at the ASRM Annual meeting.
- Top 10 cited Fertility and Sterility articles according to Scopus in the last 5 years (#88): Cohen, Wells, Munne. Removal of 2 cells from cleavage stage embryos is likely to reduce the efficacy of chromosomal tests that are used to enhance implantation rates. *Fertility and Sterility*, Volume 87, Issue 3, 2007, Pages 496-503
- American Society of Reproductive Medicine 2012 **Star Award**: awarded to reproductive health professionals who have presented for 9 of the last 10 years at the ASRM Annual meeting.
- American Society of Reproductive Medicine 2013 **Star Award**: awarded to reproductive health professionals who have presented for 9 of the last 10 years at the ASRM Annual meeting.
- American Society of Reproductive Medicine 2014 **Star Award**: awarded to reproductive health professionals who have presented for 9 of the last 10 years at the ASRM Annual meeting.

Articles

1. Munné S, Estop A (1991) The effect of *in vitro* aging on mouse sperm chromosomes. *Human Reprod.* 6: 703-708
2. Estop AM, Cieply K, Van kirk V, Munné S, Garver K (1991) Cytogenetic studies in human sperm. *Human Genet.* 87:447-451
3. Santalo J, Badenes J, Calafell JM, Catala V, Munné S, Egozcue J, Estop AM (1992) The genetic risk of In vitro Fertilization techniques. *J. Assisted Reprod. Genet.* 9:462-474.
4. Munné S (1991) In Vitro incubation of sperm: genetic consequences. Doctoral Thesis. Graduate School of Public Health. University of Pittsburgh.

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5. Munné S, Grifo J, Cohen J (1993) Preimplantation genetic diagnosis with fluorescence in situ hybridization. *Assisted Reprod. Reviews* 3:100-106
6. Munné S, Grifo J, Weier HUG, Alikani M, Cohen J, Rosenwaks Z. (1993). Preimplantation diagnosis of aneuploidy using FISH with fluorochrome-labeled probes. *INSIGHT* 2,1:1-3.
7. Munné S and Estop AM (1993) Chromosome analysis of human sperm stored *in vitro* . *Human Reprod.* 8:581-586
8. Munné S, Weier HUG, Stein J, Grifo J, Cohen J (1993) A fast and efficient method for simultaneous X and Y in situ hybridization of human blastomeres. *J. Assisted Reprod. Genet.* 10: 82-90
9. Li L, Munné S, Licciardi F, Noev Y, Tadik Y, Godke R, Cohen J (1993) Effect of UV laser on the development of mouse embryos assessed by micro-injection of FITC-Dextran. *Zygote.* 1:43-48
10. Munné S, Cohen J (1993) Unsuitability of multinucleated human blastomeres for preimplantation genetic diagnosis. *Human Reprod.* 8:1120-1125
11. Munné S, Tang YX, Weier HUG, Stein J, Filkenstein M, Grifo J, Cohen J (1993) Sex distribution in precompacted arrested human embryos. *Zygote* 1:155-162.
12. Estop MA, Munné S, Jost LK, Evenson DP (1993) Studies on sperm chromatin structure alterations and cytogenetic damage of mouse sperm following in vitro incubation. *J Androl* 14:282-288
13. **Munné S, Lee A, Rosenwaks Z, Grifo J, Cohen J (1993) diagnosis of major chromosome aneuploidies in human preimplantation embryos. *Hum Reprod* 8:2185-2191**
14. Schattman GL, Munné S, Grifo JG, Carton L, Cohen J (1993) Aneuploidy in spermatozoa using fluorescence in situ hybridization. *J Assist Reprod Genet.* 10:360-365

1994

15. Munné S, Tang YX, Grifo J, Cohen J (1994) Origin of single pronucleated human zygotes. *J. Assisted Reprod Genet.* 10:276-279
16. Cohen J, Alikani M, Munné S, Palermo JP (1994) Micromanipulation in clinical management of fertility disorders. *Seminars of reproductive endocrinology.* 12,3:151-168
17. Munné S. Mosaicism, polyploidy, aneuploidy and abnormal embryonic development (1994). Postgraduate course "Molecular genetics of the preembryo in culture". Edited by The American Fertility Society. pp.49-65
18. Munné S. Fluorescence in-situ hybridization (FISH) for human preimplantation genetic diagnosis (PGD) (1994). Postgraduate course "Molecular genetics of the preembryo in culture". Edited by The American Fertility Society. pp.69-85.
19. Munné S (1994) Flow cytometry separation of X and Y spermatozoa could be detrimental for human embryos. *Human Reprod.* 9:758
20. Munné S, Tang YX, Grifo J, Rosenwaks Z, Cohen J (1994) Sex determination of human embryos using the polymerase chain reaction and confirmation by fluorescence in situ hybridization. *Fertil.Steril.*61:111-117
21. Tang YX, Munné S, Reign A, Grifo J, Schatmann G, Grifo J, Cohen J (1994) The parental origin of the distal pronucleus in dispermic human zygotes. *Zygote,* 2:79-85
22. Munné S, Alikani M, Grifo J, Cohen J (1994) Monospermic polyploidy and atypical embryo morphology. *Human Reprod.* 9:506-510.
23. Munné S, Grifo J, Cohen J, Weier HUG (1994) Chromosome abnormalities in Arrested Human Preimplantation Embryos: A Multiple Probe Fluorescence In Situ Hybridization (FISH) Study. *Am.J.Hum.Genet.* 55,1:150-159.
24. **Munné S, Weier HUG, Grifo J, Cohen J (1994) Chromosome mosaicism in human embryos. *Biol. Reprod.* 51:373-379**
25. Palermo G, Munné S and Cohen J (1994) The human zygote inherits its mitotic potential from the male gamete. *Hum.Reprod.* 9:1220-1225.
26. Grifo JA, Tang YX, Munné S, Alikani M, Cohen J , Rosenwaks Z (1994) Healthy deliveries from biopsied human embryos. *Hum.Reprod.* 9:912-916
27. Verlinsky Y, Handside J, Grifo J, Munné S, Cohen j, et al. (1994) Preimplantation diagnosis of genetic and chromosomal disorders. *J. Assisted Reprod. Genet.* 11:236-243.

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28. Cohen J, Munné S, Palermo GD (1995). Microsurgery in preimplantation embryology. In: *Reproductive Endocrinology, Surgery and Technology.* Adashi EY, Rock, Rosenwaks Z (Eds). Raven Press. pp.
29. Munné S, Xu KP, Cohen J, Grifo J. Preimplantation genetic diagnosis (1995). In: *Reproductive Endocrinology, Surgery and Technology.* Adashi EY, Rock, Rosenwaks Z (Eds). Raven Press. pp. 2385-2395.
30. Cohen J, Alikani M, Ferrara T, Munné S, Reing A, Schattman G, Tomkin G and Rosenwaks Z (1995). Rescuing abnormally developing embryos by assisted hatching. In: *Serono Symposia series. Frontiers in endocrinology, vol.4: Perspectives on assisted Reproduction.* Mori T, Aono T, Tominaga T, Hiroi H (Eds). Ares-Serono symposia, Chistengraf SRL, Rome, Italy. pp537-544.
31. Munné S, Alikani M, Levron J, Tomkin G, Palermo G, Grifo J, Cohen J (1995) Fluorescence in situ hybridization on human blastomeres. In: *Fertility and Sterility.* Hedon B., Bringer J, Mares P (Eds). Parthenon Publishing Lancaster, UK. Pp. 425-436.
32. Munné S, Alikani M, Levron J, Cohen J (1995) Relevance of aneuploidy, polyploidy and mosaicism in

- human embryos. In: Chromosomal analysis of gametes, Zygotes and pre-embryos. ESRHE Campus Course. Maastrich, The Netherlands.
33. Cohen J, Munné S, Palermo G, Levron J, Alikani M, Tomkin G, Willadsen S. (1995) Atypical activation and fertilization following Micromanipulation of human gametes. In: Serono symposium series. *Frontiers in endocrinology*. Tesarik (Ed). Plenum Press. Pp ???
 34. Sultan KM, Munné S, Palermo GD, Alikani M, Cohen J (1995) Ploidy assessment of embryos derived from single-pronucleated human zygotes obtained by regular IVF and intra-cytoplasmic sperm injection (ICSI). *Human Reprod*, 10:132-136
 35. Estop AM, Marquez C, Munné S, Navarro J, Cieply K, Van Kirk V, Martorell MR, Benet J, Templado C (1995) An analysis of human sperm chromosome breakpoints. *Am. J. Hum. Genet*, 56:452-460.
 36. Levron J, Munné S, Willadsen S, Rosenwaks Z, Cohen J (1995) Male and female genomes associated in a single pronucleus in human zygotes. *Biol. Reprod*, 52:653-657.
 37. Munné S, Sultan KM, Weier HUG, Grifo J, Cohen J, Rosenwaks Z (1995) Assessment of numerical abnormalities of X, Y, 18 and 16-chromosomes in preimplantation human embryos prior transfer. *Am. J. Obs. Gyn* 172:1191-1201
 38. Munné S, Dailey T, Sultan KM, Grifo J, Cohen J.(1995) The use of first polar bodies for preimplantation diagnosis of aneuploidy. *Human Reprod*. 10:1015-1021
 39. **Munné S, Alikani M, Tomkin G, Grifo J, Cohen J (1995) Embryo morphology, developmental rates and maternal age are correlated with chromosome abnormalities. *Fertil.Steril.*, 64:382-391**
 40. Levron J, Willadsen S, Munné S, Cohen J (1995) Formation of male pronuclei in partitioned human oocytes. *Biol. Reprod.*, 53:209-213
 41. Cohen J, Levron J, Palermo G, Munné S, Adler A, Alikani M, Schattman G, Sultan K, Willadsen S. (1995) Atypical activation and fertilization patterns in humans. *Theriogenology*, 43:129-140
 42. Palermo G, Munné S, Colombero LT, Cohen J, Rosenwaks Z (1995) Genetics of abnormal human fertilization. *Human Reprod*. 10, Suppl.1: 120127

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43. Grifo JA, Tang YX, Munné S, Krey L (1996) Update in preimplantation Genetic diagnosis: Successes, advances and problems. *Curr. Opin. Obstet. Gynecol.* ???: 135-138
44. Munné S, Alonso ML, Grifo J (1996) case report: unusually high rates of aneuploid embryos in a 28-year old woman with incontinentia pigmenti. *Cytogenet. Cell Genet.*, 72:43-45
45. Munné S, Dailey T, Finkelstein M, Weier HUG (1996) Reduction in signal overlap results in increased FISH efficiency: implications for preimplantation genetic diagnosis. *J. Assisted Reprod. Genet.* 13:149-156.
46. Benadiva C, Kligman I, Grifo J, Munné S (1996) aneuploidy 16 in human embryos increases significantly with maternal age. *Fertil. Steril.* 66:248-255
47. Kligman I, Benadiva C, Alikani M, Munné S (1996) The presence of multinucleated blastomeres in human embryos correlates with chromosomal abnormalities. *Human Reprod*, 11:1492-1498.
48. **Dailey T, Dale B, Cohen J and Munné S (1996) Association between non-disjunction and maternal age in meiosis-II human oocytes detected by FISH analysis. *Am.J.Hum.Genet*, 59:176-184**
49. Templado C, Marquez C, Munné S, Colls P, Martorell MR, Cieply K, Benet J, Van Kirk V, Navarro J, Estop AM (1996) An analysis of human sperm chromosome aneuploidy. *Cytogenet Cell Genet* 74:194-200
50. Munné S, Weier, U (1996) Simultaneous enumeration of chromosomes 13, 18, 21, X and Y in interphase cells for preimplantation genetic diagnosis of aneuploidy. *Cytogenet. Cell. Genet* 75:263-270

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51. Munné S and Cohen J (1997) Preimplantation diagnosis in older patients- but of course!. *Human Reprod.* 12:413-414
52. Munné S and Cohen J (1997) preimplantation diagnosis in older patients....but, of course!. *Human Reprod.*, 12:413-414
53. Boiso I, Marquez C, Veiga A, Munné S (1997) Cytogenetic and FISH analysis of in vitro matured human oocytes. *Assisted Reprod Rev* 7:160-164
54. **Munné S, Magli C, Adler A, Wright G, de Boer K, Mortimer D, Tucker M, Cohen J, Gianaroli L (1997) Treatment-related chromosome abnormalities in human embryos. *Human Reprod*, 12:780-784**
55. Cassel MJ, Munné S, Fung J, Weier HUG (1997) Carrier-specific breakpoint-spanning DNA probes: an approach to preimplantation genetic diagnosis in interphase cells. *Human Reprod* 2019-2027
56. Gianaroli L, Magli MC, Ferraretti AP, Fiorentino A, Garrisi J, Munné S (1997) Preimplantation genetic diagnosis increases the implantation rate in human in vitro fertilization by avoiding the transfer of chromosomally abnormal embryos. *Fertil.Steril.* 68:1128-1131
57. Gianaroli L, Munné S, Magli MC, Ferraretti AP (1997) Preimplantation genetic diagnosis of aneuploidy and male infertility. *Int.J.Androl.* 20:Suppl.3:31-34
58. Gianaroli L, Magli MC, Munné S, Fiorentino A, Montanaro N, Ferraretti AP (1997) Will preimplantation genetic diagnosis assist patients with a poor prognosis to achieve pregnancy? *Hum Reprod* 12:1762-1767
59. Boiso I, Marquez C, Veiga A, Munné S (1997) Cytogenetic and FISH analysis of in vitro matured human oocytes. *Assisted Reprod Rev* 7:160-164

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60. Munné S., Bahce M, Márquez C, Cohen J (1998) PGD of aneuploidy and translocations. Proceedings of the 9th international conference on prenatal diagnosis and therapy.
61. Munné S, Márquez C, Bahce M, Scott R, Sable D, Cohen J (1998) preimplantation genetic diagnosis of aneuploidy and translocations. Postgraduate course of the 16th World Congress on Fertility and Sterility and 54th Annual meeting of the American society for reproductive Medicine.
62. Munné S and Cohen J (1998) Genetic abnormalities of oocytes and embryos. Postgraduate course of the 16th World Congress on Fertility and Sterility and 54th Annual meeting of the American society for reproductive Medicine.
63. Munné S, Márquez C, Fung J, Bahce M, Morrison L, Weier U, Cohen J (1998) preimplantation genetic diagnosis of aneuploidy and translocations. In: *Fertility and Reproductive Medicine*. Kempers RD, Cohen J, Haney AF, Younger JB Eds. Excerta medica. International congress series 1183. p.687-696
64. Munné S (1998) preimplantation diagnosis of aneuploidy for women of advanced maternal age. *Orgyn* 3:16-19
65. **Munné S, Scott R, Sable D, Cohen J (1998) First pregnancies after pre-conception diagnosis of translocations of maternal origin. *Fertil Steril* 69:675-681**
66. Estop AM, Munné S, Cieply KM, Vandermark KK, Lamb AN, Fisch H (1998) Meiotic products of Klinefelter 47,XXY male as determined by sperm fluorescence in-situ hybridization analysis. *Human Reprod.* 13: 124-127
67. Munné S, Márquez C, Reing A, Garrisi J, Alikani M (1998) Chromosome abnormalities in embryos obtained following conventional IVF and ICSI. *Fertil Steril* 69:904-908
68. **Munné S, Morrison L, Fung J, Márquez C, Weier U, Bahçe M, Sable D, Grundfelt L, Schoolcraft B, Scott R, Cohen J (1998). Spontaneous abortions are reduced after pre-conception diagnosis**

of translocations. JARG:290-296

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70. Magli MC, Gianaroli L, Munné S, Ferraretti AP (1998) Incidence of chromosomal abnormalities from a morphologically normal cohort of embryos in poor-prognosis patients. *J Assist Reprod Genet* 15:297-301
71. Sadowy S, Tomkin G, Munné S, Ferrara-Congedo T, Cohen J (1998) Impaired development of zygotes with uneven pronuclear size. *Zygote* 6:137-141
72. Munné S, Fung J, Cassel MJ, Márquez C, Weier HUG (1998) Preimplantation Genetic Analysis of Translocations: Case-Specific Probes for Interphase Cell Analysis. *Human Genet*, 102:663-674
73. Brenner CA, Wolny YM, Barrit JA, Matt DW, Munné S, Cohen J (1998) Mitochondrial DNA deletion in human oocytes and embryos. *Molec Human Reprod*, 4:887-892
74. **Márquez C, Cohen J, Munné S (1998) Chromosome identification on human oocytes and polar bodies by spectral karyotyping. *Cytogenet Cell Genet* 81:254-258**
75. Munné S, Bahçe M, Schimmel T, Sadowy S, Cohen J (1998) Case Report: chromatid exchange and predivision of chromatids as other sources of abnormal oocytes detected by preimplantation genetic diagnosis of translocations. *Prenatal Diagn*. 18:1450-1458
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79. **Munné S and Cohen J (1998) Chromosome abnormalities in human embryos. *Human Reprod Update*. 4: 842-855**

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81. Cohen J, Brenner C, Warner C, Steuerwald N, Sadowy S, Barritt J, Sandalinas M, Munné S (1999) genetics of the fertilizing egg. in: *IVF world congress book, toward reproductive certainty: fertility and genetics beyond 1999*. pp.??
82. Munné S, Marquez C, Bahce M, Sable D, Scott R, Cohen J (1999) Preimplantation genetic diagnosis. Cytogenetic testing of aneuploidy and translocations. In: "Human Genetics Update" Postgraduate course. XIth World Congress on In Vitro Fertilization and human Reproductive Genetics. Sidney, Australia.
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84. Weier HUG, Munné S, Lersch RA, Marquez C, Wu J, Pedersen RA, Fung J (1999) High performance analysis of single interphase cells with custom DNA probes spanning translocation breakpoints. In: *Progress in biomedical optics. Proceedings of optical diagnostics of living cells II*. Farkas DL, Leif RC, Tromberg BJ, Katzir A. (eds). SPIE. pp.227-236

85. Willadsen S, Levron J, Munné S, Schimmel T, Márquez C, Scott R, Cohen J (1999) Rapid Visualization of Metaphase Chromosomes in Single Human Blastomeres After Fusion with In Vitro Matured Bovine Eggs. *Human Reprod* 14:470-475
86. Magli MC, Gianaroli L, Ferraretti AP, Fortini D, Munné S (1999) Impact of blastomere biopsy and cryopreservation techniques on human embryo viability. *Human Reprod.* 14:770-773
87. Bahçe M, Cohen J, Munné S (1999) PGD of aneuploidy: were we looking at the wrong chromosomes? *J. Assisted Reprod Genet.* 16: 176-181
88. Weier HUG, Munné S, Fung J (1999) patient-specific probes for Preimplantation genetic diagnosis (PGD) of structural and numerical aberrations in interphase cells. *J. Assisted Reprod Genet* 16:182-191
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90. Estop AM, Cieply KM, Munné S, Feingold E (1999) Multicolor fluorescence in situ hybridization analysis of the spermatozoa of a male heterozygous for a reciprocal translocation t(11;22)(q23;q11). *Human Genet*,104:412-417
91. **Munné S, Magli C, Cohen J, Morton P, Sadowy S, Gianaroli L, Tucker M, Márquez C, Sable D, Ferraretti AP, Massey JB, Scott R (1999) Positive outcome after preimplantation diagnosis of aneuploidy in human embryos. *Human Reprod*, 14:2191-2199**
92. Fung J, Munné S, Garcia J, Kim UJ, Weier HUG (1999) Molecular cloning of translocation breakpoints in a case of constitutional t(11;22)(q23;q11) and preparation of probes for preimplantation genetic diagnosis (PGD) *Reprod Fertil Devel* 11:17-23
93. **Gianaroli L, Magli MC, Ferraretti AP, Munné S (1999) Preimplantation diagnosis for aneuploidies in patients undergoing in vitro fertilization with poor prognosis: identification of the categories to which it should be proposed. *Fertil. Steril.* 72:837-844**
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95. Weier, H. -U. G., Munné, S., Lersch, R. A., Marquez, C., Wu, J., Pedersen, R. A., and Fung, J. (1999) High performance analysis of single interphase cells with custom DNA probes spanning translocation breakpoints. *SPIE Proceedings* 3604:227-236.

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96. Munné S (2000) Preimplantation genetic diagnosis of numerical abnormalities using FISH. Trounson AO and Gardner DK (Eds). *Handbook of In vitro Fertilization*, 2nd edition. CRC press, Boca Raton, FL. chapter 13th. pp307-326
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217. Natesan SA, Coskun S, Qubbaj W, Prates R, Munné S, Coonen E, Dreesen JCFM, Stevens SJC, Paulussen ADC, Stock-Myer SE, Wilton LJ, Jaroudi S, Wells D, Brown APC, Handyside AH (2014) Genome wide karyomapping accurately identifies the inheritance of single gene defects in human preimplantation embryos in vitro. (doi: 10.1038/gim.2014.45) *Genetics in Medicine*, 16(11):838-45
218. Wells D, Kaur K, Rico A, Grifo J, Anderson S, Sherlock J, Taylor JC, Munné S (2014) Clinical utilization of a rapid low-pass whole-genome sequencing technique for the diagnosis of aneuploidy in human embryos prior to implantation. *J Med Genet* 2014; 51:553–562. (doi: 10.1136/jmedgenet-2014-102497).
219. Bristow SL, Kumar N, Bisignano A, Munné S (2014) Biomarkers for infertility and recurrent pregnancy loss. *Reprod Biomed Online*, doi: 10.1016/j.rbmo.2014.05.001, **in press**.

Past and present Society Appointments:

- Board of Directors of the Preimplantation Genetic Diagnosis International Society (2002 to present)
- Treasurer of the Preimplantation Genetic Diagnosis International Society (2007 to 2009)
- Secretary of the Preimplantation Genetic Diagnosis International Society (2011 to 2013)
- Officer of the board of PGD-SIG of American Society of Reproductive Medicine (2006 to present)
- President Elect, PGD-SIG of American Society of Reproductive Medicine (2011 to 2013)
- Member of the Board of the International Academy of Human Reproduction (2013 to present)

Editorial positions:

- Editorial board of Reproductive Medicine Online (2006-to date) and co-founder of the journal with Bob Edwards (Medicine Nobel Prize, 2010), Jacques Cohen, and others
- Editorial board of Obstetrics and Gynecology section of the Editorial Board of Dataset Papers in Medicine (2012- to present)
- Editorial board of Prenatal Diagnosis (2006-2011)
- Editorial board of Journal of Assisted Reproduction and Genetics (2006- 2008)
- Reviewer of material for a wide range of scientific and medical journals including: *American Journal of Human Genetics, Cytogenetics and Cell Genetics, Human Genetics, Biology of Reproduction, Human Reproduction, Fertility and Sterility, Reproductive Biomedicine Online, Prenatal Diagnosis, Journal for Assisted Reproduction and Genetics, Human Reproduction Updates, Molecular Human Reproduction, Journal of Assisted Reproduction and Genetics*.

Past and present research support:

- 1997 – Title: Screening of aneuploidy in human oocytes. Funding Institution: NIH/ NICHD. Grant number: 1R43HD3501001A1. P.I.: Santiago Munné, Grant amount:
- 2004 – Title: Full karyotype single cell interphase analysis. Funding Institution: NIH. Grant number: 1R44HD44313-01. P.I.: Santiago Munné, Grant amount: \$592,973
- 2004 – Title: Single cell analysis of chromosome abnormalities. Funding Institution: NIH; Grant number: 2R44 HD35010-02. P.I.: Nury Steuerwald; Santiago Munne effort: 5%; Grant amount: \$539,038
- 10/01/2007 – 10/01/2009: Title: Novel methods of derivation, expansion, cryopreservation, and characterization of human embryonic stem cell lines. Funding Institution: State of New Jersey; The Commission on Science and Technology (NJCST). P.I.: Alikani, M; Santiago Munné Effort: 10%. Grant amount: \$603,091
- 4/16/2008 – 2/16/2010 Title: “Comparison of Double Embryo Transfer (D.E.T.) with D.E.T. combined with PGS for the indication of advanced maternal age (37-42) in patients undergoing ART”. Funding institution: Serono Inc; P.I.: Jacques Cohen; Santiago Munne effort: 10%; Funding Institution: Grant amount: \$160,900

Participation in scientific committees:

- Member of the Scientific Committee of the International Symposium on Genetics of Gametes and Embryos, June 2-5, 1994, New York, NY, USA.
- Member of the Scientific Advisory Committee of the Second International symposium of Preimplantation Genetic Diagnosis. 17-21 Sept. 1997. Chicago, USA.
- Member of the International Scientific Advisory committee of the 11th World Congress on In Vitro Fertilization and Human Reproductive Genetics. Sidney, Australia, May 9-14, 1999.
- Member of the International Scientific Advisory committee of the third international symposium on preimplantation genetics. Bologna, Italy, June 22-23, 2000.
- Member of National Scientific committee member of the Third biennial Alpha Conference, New York, NY, USA. September 8-11, 2001.
- Member of International Advisory Committee of the Fifth International symposium on preimplantation Genetics, Antalya, Turkey 5-7 June, 2003
- Member Scientific Committee of “Procedures in Assisted Reproduction”, Cape Town, Republic of South Africa, 26-27 Jan 2006.
- President Organizing Committee, 8th International Symposium in Preimplantation Genetic Diagnosis (annual meeting of PGDIS). Barcelona, Spain, 23-26 April 2008
- Board of advisors, BCGIP-COGI Congress in the Gynecology and Infertility section, Istanbul, Turkey, 2013.

Memberships:

ASRM (# 831441); ESHRE (# E-10-00363); ASHG (#12980); PCRS; PGDIS; ISPD (#5415); ISSCR (#14517); ALMER.

- **Not included:** Abstracts, invited talks, continuing education, corporate scientific advisory boards