

Literature folder listing publications on Fertilase®, OCTAX Laser Shot™, Octax NaviLase®

Original articles

1994 – 1997

Rink K., Delacrétaz G., René P. Salathé (1994) Laser surgery at the micrometer scale: Possibilities and limits. Proceedings SPIE Vol. 2323, Laser Interaction with Hard and Soft Tissue II, 262–272.

Rink K., Delacrétaz G., Salathé R., Senn A., Nocera D., Germond M., Fakan S. (1994) 1.48 µm diode laser microdissection of the zona pellucida of mouse zygotes. Proceedings SPIE 2134A, Laser-Tissue Interaction V, 412-422.

Germond M., Nocera D., Senn A., Rink K., Delacrétaz G., Fakan S. (1995) Microdissection of mouse and human zona pellucida using a 1,48 µm diode laser beam: efficacy and safety of the procedure. *Fertil. Steril.* 64:604-611.

Germond M., Senn A., Rink K., Delacrétaz G., De Grandi P. (1995) Is assisted hatching of frozen-thawed embryos enhancing pregnancy outcome in patients who had several previous nidation failures? *Journal für Fertilität und Reproduktion*, 41-42.

1 Rink K., Descloux L., Delacrétaz G. (1995) Zona pellucida drilling by a 1.48 µm Laser: Influence on the biomechanics of the hatching process. Proceedings SPIE Vol. 2624, Laser-Tissue Interaction and Tissue Optics, 27-32.

Germond M., Nocera D., Senn A., Rink K., Delacrétaz G., Pedrazzini T., Hornung J.P. (1996) Improved fertilisation and implantation rates after non-touch zona pellucida micro-drilling of mouse oocytes with a 1.48 µm diode laser beam. *Hum. Reprod.* 11,1043-1048.

Rastegar S., Hollis A., Descloux L., Rink K., Delacrétaz G., Senn A., Nocera D., Germond M. (1996) Analysis of localized drilling of zona pellucida by 1.48 µm Diode Laser. Proceedings SPIE Vol. 2681, Laser-Tissue Interaction VII, 214-217.

Rink K., Delacrétaz G., Salathé R., Senn A., Nocera D., Germond M., De Grandi P., Fakan S. (1996) Non-contact microdrilling of mouse zona pellucida with an objective-delivered 1.48 µm diode laser. *Lasers in Surgery and Medicine* 18,52-62.

Zona pellucida drilling with cw mid-infrared radiation: basic and applications. *Lasers and Electro-Optics*; 1996 Juni 2-7, Anaheim.

Hollis A., Rastegar S., Delacrétaz G., Descloux L., Rink K. (1997) Characterization of the Thermal Field Associated with Laser Microdrilling of Zona Pellucida. Proceedings SPIE 3195, Laser-Tissue Interaction, Tissue Optics and Laser Welding III, 128-136.

Hollis A., Rastegar S., Descloux L., Delacrétaz G., Rink K. (1997) Zona pellucida microdrilling with a 1.48 µm Diode Laser. *IEEE Engineering in Medicine and Biology*, May/June 1997, 43-47.

Hollis. A., Rastegar S., Descloux L. Delacretaz G. and Rink K. (1997): Analysis of dynamics of zona pellucida microdrilling by a 1.48 µm diode laser. Proceedings of the 18th Annual International Conference of the IEEE, Engineering in Medicine and Biology Society 1997, xxxiv (5),2315.

Veiga A., Sandalinas M., Benkhalifa M., Boada M., Carrera M., Santaló J., Barri P., Ménézo Y. (1997) Laser blastocyst biopsy for preimplantation diagnosis in the human. Zygote 5,351-354.

1998

Boada M., Carrera M., De La Iglesia C., Sandalinas M., Barri PN., Veiga A. (1998) Successful use of a laser for human embryo biopsy in preimplantation genetic diagnosis: a report of two cases. J. Assist. Reprod. Genet. 15(5),301-305.

Descloux L., Rastegar S., Delacrétaz G., Hollis A., Rink K. (1998) Kinetics of Zona Pellucida Thermo-dissolution in Mouse Zygotes. SPIE 3195, Laser-Tissue Interaction, Tissue Optics and Laser Welding III, 137-142.

El-Maari O., Olek A., Balaban B., Montag M., van der Ven H., Urman B., Olek K., Caglayan S.H., Walter J., Oldenburg J. (1998) Methylation Levels at Selected CpG Sites in the Factor VIII and FGFR3 Genes in Mature Female and Male Germ Cells: Implications for Male Driven Evolution. Am. J. Hum. Genet. 63,1001-1008.

Germond M., Primi M-P, Senn A., Rink K., Descloux L., Delacretaz G. (1998) Diode laser for assisted hatching. Photomedicine in Gynecology and Reproduction. Karger Publishers, Basel, 2000, pp. 352-365.

2

Montag M., Baukloh V. (1998): Verbessert "Assisted Hatching" die Schwangerschaftsraten? Reproduktionsmedizin 14,327-329.

Montag M., van der Ven K., Delacrétaz G., Rink K., van der Ven H. (1998): Laser assisted microdissection of zona pellucida facilitates polar body biopsy. Fertil.Steril. 69(3),539-542.

Schmoll F., Montag M., Lammer T., Wimmers K., Delacrétaz G., Rink K., van der Ven H., Schellander K. (1998) Removal of inner cell mass of bovine IVP-blastocysts by laser irradiation. Theriogenology 49,226.

1999

Germond M., Primi M-P., Senn A., Rink K., Delacrétaz G. (1999) The use of lasers for micromanipulation. In: Shoham, Z., Howles, C.M., Jacobs, H.S. (Eds.) Female Infertility Therapy – Current Practice. Chapter 20, pp. 221-231.

Montag M., Rink K., Delacrétaz G., van der Ven H. (1999) Anwendung der Lasertechnik im Bereich der assistierten Reproduktion. Reproduktionsmedizin 15,45-54.

Montag M., Rink K., Delacrétaz G., van der Ven H. (1999): Anwendung des Dioden-Lasers bei der assistierten Reproduktion. In: Krebs, D., Van der Ven, H. (Eds.) Aktuelle Reproduktionsmedizin, Thieme Verlag, Stuttgart, New York, pp. 47-53.

Montag M., Rink K., Descloux L., Delacrétaz G., van der Ven H. (1999): The Use of a 1.48 µm Laser System in Assisted Reproduction: Laser-Drilling of the Zona Pellucida and Laser-Assisted Immobilization of Spermatozoa. *Assisted Reproduction* 9(4),205-213.

Montag M., Rink K., Dieckmann U., Delacrétaz G., van der Ven H. (1999): Laser-assisted cryopreservation of single human spermatozoa in cell-free zona pellucida. *Andrologia* 31,49-53.

Montag M., van der Ven H. (1999): Laser-Assisted Hatching in Assisted Reproduction. *Croatian Medical Journal* 40(3),398-403.

Primi M-P., Senn A., Rink K., Descloux L. Delacrétaz G., Germond M. (1999) Assisted Hatching. *Giornale Italiano di Ostetricia e Ginecologia* 1/99.

Schmoll F., Schneider H., Montag M., Rink K., Wimmers K., Tholen E., Ponsuksili S., van der Ven H., Schellander K. (1999) Laser assisted hatching in bovine in vitro produced blastocysts. Annual meeting of the International Embryo Transfer Society, Québec/Canada 1999; *Theriogenology* 51(1),253.

Schöpper B.,Ludwig M., Edenfeld J., Al-Hasani S., Diedrich K. (1999) Possible applications of lasers in assisted reproductive technologies. *Hum. Reprod.* 14 (Suppl1),186-193.

2000

Montag M. and van der Ven H. (2000): Gibt es Indikationen für „assisted hatching“? *Gynäkologe* 33(11),772-776.

3

Montag M., Koll B., Holmes P., van der Ven H. (2000) The significance of the number of embryonic cells and the state of the zona pellucida for hatching of mouse blastocysts in vitro versus in vivo. *Biology of Reprod.* 62,1738-1744.

Montag M., Koll B., van der Ven H. (2000) Use of a laser to evaluate zona pellucida hardness at different stages of mouse embryonic development in vitro and in vivo. *J. Ass. Reprod. Gen.* 17,178-179.

Montag M., Lemola R., van der Ven H. (2000) A new method to produce equally-sized hemizonae pellucidae for the hemizona assay. *Andrologia* 32,179-180.

Montag M., Rink K., Delacrétaz G., van der Ven H. (2000) Laser in Assisted Reproduction. In: Rabe, T., Diedrich, K., Strowitzki, T. (Eds.) *Manual on Assisted Reproduction*. Springer Verlag, Heidelberg, pp. 473-487.

Montag M., Rink K., Delacrétaz G., van der Ven H. (2000) Laser-induced immobilization and plasma membrane permeabilization in human spermatozoa. *Hum. Reprod.* 15(4),846-852.

Montag M., van der Ven H. (2000) Gibt es Vorteile des Assisted hatching? Inwieweit ist mit Gefahren des assisted hatching für den sich entwickelnden Embryo zu rechnen? *Reproduktionsmedizin* 16(1),62-63.

2001

Blake D.A., Forsberg A.S., Johansson B.R., Wiklund M. (2001) Laser zona pellucida thinning – an alternative approach to assisted hatching. *Hum. Reprod.* 16(9),1959-1964.

Ebner T., Yaman C., Moser M., Sommergruber M., Hartl J., Tews G. (2001) Laser assisted immobilization of spermatozoa prior to intracytoplasmic sperm injection in humans. *Hum. Reprod.* 16(12),2628-2631.

Malter H.E., Schimmel T., Cohen J., (2001) Zona dissection by infrared laser: developmental consequences in the mouse, technical considerations, and controlled clinical trial. *RBM Online* 3(2),117-123.

Mantoudis E.,Podsiadly B.T., Gorgy A., Venkat G., Craft I.L. (2001) A comparison between quarter, partial and total laser assisted hatching in selected infertility patients. *Hum. Reprod.* 16(10),2182-2186.

Montag M., van der Ven H. (2001) Kritische und befürwortende Betrachtungen zur Diskussion über den Stellenwert der Technik des Assisted Hatching. *Reproduktionsmedizin* 17(2),108-111.

Montag M., van der Ven H. (2001) The Impact of Diode Laser Technology in Assisted Reproduction. *IVF-News Organon* 4,13-17.

Montag M., van der Ven H. (2001) The Use of a 1.48 µm Diode Laser in Assisted Reproduction. In: Kumar, A., Mukhopadhyay, A.K. (Eds.) Follicular Growth Ovulation and Fertilization: Molecular and Clinical Basis. Narosa Publishing House, New Dehli, pp. 240-249.

4 Rienzi L., Greco E., Ubaldi F., Iacobelli M.L., Martinez F., Tesarik J. (2001) Laser-assisted intracytoplasmic sperm injection. *Fertil. Steril.* 76(5),1045 – 1047.

Tesarik J., Nagy Z.P., Sousa M., Mendoza C., Abdelmassih R. (2001) Fertilizable oocytes reconstructed from patient's somatic cell nuclei and donor ooplasts. *RBM Online* 2(3),160-164.

2002

Abdelmassih S., Cardoso J., Abdelmassih V., Dias J.A., Abdelmassih R., Nagy Z.P. (2002) Laser-assisted ICSI: a novel approach to obtain higher oocyte survival and embryo quality rates. *Hum. Reprod.* 17(10),2694 – 2699.

Ebner T., Moser M., Wiesinger R., Dunzinger M., Tews G. (2002) Einsatz eines 1,48 µm Lasers für die Immobilisation von ejakulierten, epididymalen und testikulären Spermatozonen in der intrazytoplasmatischen Spermieninjektion. *J. Urol. Urogynäkol.* 9(4),7-12.

Ebner T., Moser M., Yaman C., Sommergruber M., Hartl J., Jesacher K., Tews G. (2002) Prospective hatching of embryos developed from oocytes exhibiting difficult oolemma penetration during ICSI. *Hum. Reprod.* 17(5),1317-1320.

Ebner T., Moser M., Yaman C., Sommergruber M., Tews G. (2002) Successful birth after laser assisted immobilization of spermatozoa before intracytoplasmic injection. *Fertil. Steril.* 78(2),417-418.

Hsieh Y.-Y., Huang C.-C., Cheng T.-C., Chang C.-C, Tsai H.-D., Lee M.-S.(2002) Laser-assisted hatching of embryos is better than the chemical method for enhancing the pregnancy rate in women with advanced age. *Fertil. Steril.* 78(1),179-182.

Montag M., van der Ven H. (2002) Unerfüllter Kinderwunsch. Ihr Kinderlein kommt – mit neuen Techniken zum Erfolg. Gynäkologie + Geburtshilfe 3/2002,52-57.

Montag M., van der Ven K., van der Ven H. (2002) Erste klinische Erfahrungen mit der Polkörperdiagnostik in Deutschland. J. Fertil. Reprod. 4/2002,7-12.

Rienzi L, Nagy Z.P., Ubaldi F., Jacobelli M., Anniballo R., Tesarik J., Greco E. (2002) Laser-assisted removal of necrotic blastomeres from cryopreserved embryos that were partially damaged. Fertil. Steril. 77(6),1196 – 1201.

van der Ven H., Montag M., van der Ven K. (2002) Schwangerschaft nach Polkörperbiopsie und Fluoreszenz-in situ-Hybridisierung (FISH) der Chromosomen 13, 16, 18, 21 und 22. Geburtsh. Frauenheilk. 62,585-588.

2003

Debrock S., Spiessens C., Afschrift H., Van der Auwera I., M. D'Hooghe T. (2003) Application of the Fertilase®-Laser system versus the conventional mechanical method to immobilize spermatozoa for intracytoplasmic sperm injection. Gynecol Obstet Invest 56,102-105

Ebner T., Moser M., Sommergruber M., Gaiswinkler U., Wiesinger R., Puchner M., Tews G. (2003) Presence, but not type or degree of extension, of a cytoplasmic halo has a significant influence on preimplantation development and implantation behaviour. Hum. Reprod. 18(11),2406-2412.

Han T.S., Sagoskin A.W., Graham J.R., Tucker M.J., Liebermann J. (2003) Laser-assisted human embryo biopsy on the third day of development for preimplantation genetic diagnosis: two successful case reports. Fertil. Steril. 80(2),453-455.

5

Joris H., De. Vos A., Janssens R., Devroey P., Liebaers I., van Steirteghem A. (2003) Comparison of the results of human embryo biopsy and outcome of PGD after zona drilling using acid Tyrode medium or a laser. Hum. Reprod. 18(9),1896-1902.

Kanyó K., Konc J. (2003) A follow-up study of children born after diode laser assisted hatching. Eur J Obstet Gynecol Reprod Biol. 110,176-80.

Nagy Z.P. (2003) Micromanipulation of the human oocyte. RBM Online 7 (Comp 1),81-87.

Schmoll F., Schneider H., Montag M., Wimmers K., Rink K., Schellander K., (2003) Effects of different laser-drilled openings in the zona pellucida on hatching of in vitro-produced cattle blastocysts. Fertil. Steril. 80 (Suppl.),714-719.

Wong B.C., Boyd C.A., Lanzendorf S.E. (2003) Randomized controlled study of human zona pellucida dissection using the Zona Infrared Laser Optical System: evaluation of blastomere damage, embryo development, and subsequent hatching. Fertil. Steril. 80(5),1249-1254.

2004

Aktan. T.M., Montag. M., Duman, S., Gorkemli, H., Rink, K., Yurdakul, T. (2004) Use of a laser to detect viable but immotile spermatozoa. Andrologia 36,366-369.

Baart E.B., van Opstal D., Los F.J., Fauser B.C.J.M., Martini E (2004) Fluorescence in situ hybridization analysis of two blastomeres from day 3 frozen-thawed embryos followed by analysis of the remaining embryo on day 5. Hum. Reprod. 19(3),685-693.

Chang C.Y., Lin Y.C., Huang F.J., Kung F.T., Chang S.Y. (2004) Modified laser-assisted zonal opening method for human embryo biopsy in preimplantation genetic diagnosis: preliminary experience. *J. Reprod. Med.* 49(5),345-352.

Imthurn B., Achermann J., Klug Arter M., Macas E. (2004) Preimplantation diagnosis in Switzerland – birth of a healthy child after polar body biopsy. *Swiss Med Wkly* 134,259-261.

Kanyo K., Konc J., Solti L., Cseh S. (2004) Assisted reproductive research: laser assisted hatching and spindle detection (spindle view technique). *Acta Vet. Hung.* 52(1),113-123.

Melotte C., Debrock S., D'Hooghe T., Fryns J.P., Vermeesch J.R. (2004) Preimplantation genetic diagnosis for an insertional translocation carrier. *Hum. Reprod.* 19(12),2777-2783.

Montag M., van der Ven K., Dorn Ch., van der Ven H. (2004) Outcome of laser-assisted polar body biopsy and aneuploidy testing. *RBM Online* 9(4),425-429.

Moser M., Ebner T., Sommergruber M., Gaisswinkler U., Jesacher K., Puchner M., Wiesinger R., Tews G (2004) Laser-assisted zona pellucida thinning prior to routine ICSI. *Hum. Reprod.* 19(3),573-578.

Nagy Z.P.(2004) Micromanipulation of the human oocyte. *RBM Online* 7(6),634-640.

Primi M.-P., Senn A., Montag M., Van der Ven H., Mandelbaum J., Veiga A., Barri P., Germond M. (2004) A European multicentre prospective randomized study to assess the use of assisted hatching with a diode laser and the benefit of an immunosuppressive/antibiotic treatment in different patient populations. *Hum. Reprod.* 19(10),2325-2333.

Rienzi L., Ubaldi F., Martinez F., Minasi M.G., Iacobelli M., Ferrero S., Tesarik J., Greco E. (2004) Clinical application of laser-assisted ICSI: a pilot study. *Eur. J. Obstet. Gynecol. Reprod. Biol.* Jul 1; 115 Suppl. 1,77-79.

6

2005

Ciray H.N., Bener F., Karagenc L., Ulug U., Bahceci M. (2005) Impact of assisted hatching on ART outcome in women with endometriosis. *Hum. Reprod.* 20(9),2546-2549.

Ebner T., Moser M., Tews G. (2005) Possible applications of a non-contact 1.48 µm wavelength diode laser in assisted reproduction technologies. *Hum. Reprod. Update* 11(4),425-35.

McArthur S., Leigh D., Marshall, J.T., de Boer K.A., Jansen, R.P.S. (2005) Pregnancies and live births after trophectoderm biopsy and preimplantation genetic testing of human blastocysts. *Fertil. Steril.* 84(6),1628-1636.

Petersen C.G., Mauri A.L., Baruffi R.L., Oliveira J.B., Massaro F.C., Elder K., Franco J.G.Jr. (2005) Implantation failures: success of assisted hatching with quarter-laser zona thinning. *Reprod. Biomed. Online* 10(2),224-229.

Rienzi L., Ubaldi F., Iacobelli M., Minasi M.G., Romano S., Ferrero S., Sapienza F., Baroni E., Tesarik J., Greco E. (2005) Developmental potential of fully intact and partially damaged cryopreserved embryos after laser-assisted removal of necrotic blastomeres and post-thaw culture selection. *Fertil. Steril.* 84(4),888-894.

2006

- Ewerling S., Hofmann A., Klose R., Weppert M., Brem G., Rink K., Pfeifer A., Wolf E. (2006) Evaluation of laser-assisted lentiviral transgenesis in bovine. *Transgenic Res.* 15(4),447-54.
- Ghobara T.S., Cahill D.J., Ford W.C.L., Collyer H.M., Wilson P.E., Al-Nuaim L., Jenkins J.M. (2006) Effects of assisted hatching method and age on implantation rates of IVF and ICSI. *RBMOnline* 13(2),261-267.
- Jasper M.J., Hu D.G., Liebelt J., Sherrin D., Watson R., Tremellen K.P., Hussey N.D. (2006) Singleton births after routine preimplantation genetic diagnosis using exclusion testing (D4S43 and D4S126) for Huntington's disease. *Fertil.Steril.* 85(3),597-602
- Spits C., De Rycke M., Verpoest W., Lissens W., Van Steirteghem A., Liebaers I., Sermon K. (2006) Preimplantation genetic diagnosis for Marfan syndrome. *Fertil. Steril.* 86(2),310-320
- Tomi D. (2006) First pregnancy and life after preimplantation genetic diagnosis by polar body analysis for mucopolysaccharidosis type I. *Reprod. Biomed. Online* 12(2),215-220.
- Yano K., Kubo T., Ohashi I., Yano C. (2006) Assisted hatching using a 1.48 µm diode laser: Evaluation of zona opening and zona thinning techniques in human embryos. *Reprod. Med. Biol.* 5,221.

2007

- Cortés J.L., Cobo F., Catalina P., Nieto A., Cabrera C., Montes R., Concha A., Menendez P. (2007) Evaluation of a laser technique to isolate the inner cell mass of murine blastocysts. *Biotechnol Appl Biochem* 46:205-209
- 7 Feyereisen E., Steffann J., Romana S., Lelorc'h M., Ray P., Kerbrat V., Tachdjian G., Frydman R., Frydman N. (2007) Five years' experience of preimplantation genetic diagnosis in the Parisian Center: outcome of the first 441 started cycles. *Fertil. Steril.* 87(1):60-73
- Gonzalez-Merino E., Hans C., Abramowicz M., Englert Y., Emiliani S. (2007) Aneuploidy study in sperm and preimplantation embryos from nonmosaic 47,XYY men. *Fertil. Steril.* 88(3):600-606

2008

- Cortes J.L., Sánchez L., Catalina P., Cobo F., Bueno C., Martínez-Ramirez A., Barroso A., Cabrera C., Ligero G., Montes R., Rubio R., Nieto A., Menendez P. (2008) Whole-blastocyst culture followed by laser drilling technology enhances the efficiency of inner cell mass isolation and embryonic stem cell derivation from good- and poor-quality mouse embryos: new insights for derivation of human embryonic stem cell lines. *Stem Cells Dev* 17(2):255-267
- Desai N, Szeptycki J, Scott M, Faten F. AH, Goldfarb J. (2008) Artificial Collapse of Blastocysts Before Vitrification: Mechanical vs. Laser Technique and Effect on Survival, Cell Number, and Cell Death in Early and Expanded Blastocysts. *Cell Preservation Technology* 6:181–190
- Ge H.-S., Zhou W., Zhang W., Lin J.-J. (2008) Impact of assisted hatching on fresh and frozen-thawed embryo transfer cycles: a prospective, randomized study. *RBM Online* 16(4):589-596.
- Gerber P.A., Kruse R., Hirchenhain J., Krüssel J.-S., Neumann, N.J. (2008) Pregnancy after laser-assisted selection of viable spermatozoa before intracytoplasmic sperm injection in a couple with male primary cilia dyskinesia. *Fertil. Steril.* 89(6):1826.
- Landwehr C., Montag M., van der Ven K., Weber R.G. (2008) Rapid comparative genomic hybridization protocol for prenatal diagnosis and its application to aneuploidy screening of human polar bodies. *Fertil. Steril.* 90(3):488-496.

Macas E., Merki-Feld G.S., Xie M., Stiller R., Pelczar P., Imthurn B. (2008) High survival and developmental rates of vitrified mouse zygotes following polar body biopsy. RBM Online 16(2):271-275.

2009

Cortes J.L., Sanchez L., Ligero G., Gutierrez-Aranda I., Catalina P., Elosua C., Leone P.E., Montes R., Bueno C., Ramos-Mejía V., Maleno I., García-Pérez J.L., Menendez P. (2009) Mesenchymal stem cells facilitate the derivation of human embryonic stem cells from cryopreserved poor-quality embryos. Hum Reprod 24(8):1844-1851

Debrock S., Spiessens C., Peeraer K., De Loecker P., Willemen D., D'Hooghe T.M. (2009) Higher implantation rate using modified quarter laser-assisted zona thinning in repeated implantation failure. Gynecol Obstet Invest 67:127-133.

Frydman N., Féraud O., Bas C., Amit M., Frydman R., Bennaceur-Griscelli A., Tachdjian G. (2009) Characterization of human PGD blastocysts with unbalanced chromosomal translocations and human embryonic stem cell line derivation. RBM Online 19 Suppl. 4:57-70.

Haaf T., Hahn A., Lambrecht A., Grossmann B., Schwaab E., Khanaga O., Hahn T., Tresch A., Schorsch M. (2009) A high oocyte yield for intracytoplasmic sperm injection treatment is associated with an increased chromosome error rate. Fertil. Steril. 91(3):733-738

Lan K.-C., Huang, F.-J., Kung, F.-T., Chang, S.Y. (2009) Zona-free versus laser zona-assisted hatching blastocyst transfer: a comparison of outcomes. Fertil. Steril. 91(5):1959-1962.

Macas E., Mátyás G., Reuge P., Berger W., Imthurn B. (2009) Polar body biopsy for Curschmann-Steinert disease and successful pregnancy following vitrification. RBM Online 18(6):815-820.

8 Montag M., Klose R., Köster M., Rösing B., van der Ven K., Rink K., van der Ven H. (2009) Application of non-contact laser technology in assisted reproduction. Med Laser Appl. 24(1):57-64

Peters D.D., Lepikhov K., Rodenacker K., Marschall S., Boersma A., Hutzler P., Scherb H., Walter J., Hrabe' de Angelis M. (2009) Effect of IVF and laser zona dissection on DNA methylation pattern of mouse zygotes. Mamm Genome 20:664-673

Vanneste E., Melotte C., Debrock S., D'Hooghe T., Brems H., Fryns J.P., Legius E., Vermeesch J.R. (2009) Preimplantation genetic diagnosis using fluorescent in situ hybridization for cancer predisposition syndromes caused by microdeletions. Hum. Reprod. 24(6):1522-1528

Zak T., Kubiacyk B., Breborowicz G. H, Kaczmarek-Sroka A., Kaczmarek D., Dera A. (2009) Laser-assisted hatching of zona pellucida – is there an effect on implantation and pregnancy rate? Preliminary observations. Archives of Perinatal Medicine 15(4):197-201

2010

Desai N., AbdelHafez F., Bedaywi M.A., Goldberg J., Falcone T., Goldfarb J. (2010) Clinical pregnancy and live births after transfer of embryos vitrified on day 3. RBM Online 20(6):808-813.

Kutlu P., Atvar O., Vanlioglu O.F. (2010) Laser assisted zona thinning technique has no beneficial effect on the ART outcomes of two different maternal age groups. J Assist Reprod Genet 27:457–461

Martinhago C.D., Vagnini L.D., Petersen C.G., Mauri A.L., Baruffi R.L., de Oliveira R.M., Franco J.G. (2010) Development of a real-time PCR method for rapid sexing of human preimplantation embryos. RBM Online 20(1):75-82

Mir P., Rodrigo L., Mateu E., Peinado V., Milán M., Mercader A., Buendía P., Delgado A., Pellicer A., Remohí J., Rubio C. (2010) Improving FISH diagnosis for preimplantation genetic aneuploidy screening. *Hum. Reprod.* 25:1812–1817

Peciña A., Lozano Arana M.D., García-Lozano J.C., Borrego S., Antiñolo G. (2010) One-step multiplex polymerase chain reaction for preimplantation genetic diagnosis of Huntington disease. *Fertil. Steril.* 93:2411-2412

Ou Y.-C., Lan, K.-C., Huang, F.-J., Kung, F.-T., Lan, T.-H., Chang, S. Y. (2010) Comparison of in vitro fertilization versus intracytoplasmic sperm injection in extremely low oocyte retrieval cycles. *Fertil. Steril.* 93:96-100.

Santos M.A., Teklenburg G., Macklon N.S., Van Opstal D., Schuring-Blom G.H., Krijtenburg P.-J., de Vreeden-Elbertse J., Fauser B.C., Baart E.B. (2010) The fate of the mosaic embryo: chromosomal constitution and development of Day 4, 5 and 8 human embryos. *Hum. Reprod.* 25:1916-1926

Wiklund M., Hardarson T., Hillensjö T., Westin C., Westlander G., Wood M., Wennerholm U.B. (2010) Obstetric outcomes after transfer of vitrified blastocysts. *Hum. Reprod.* 25: 1699 - 1707

2011

Borges E.Jr., Figueira R.C.S., Braga D.P.A.F., Pasqualotto F.F., Setti A.S., Iaconelli A.Jr. (2011) Contributing factors for the incidence of aneuploidy in intracytoplasmic sperm injection cycles. *Hum. Reprod.* 26 (Suppl. 1):i55. Abstracts of the 27th Annual Meeting of ESHRE

Debrock S., Peeraer K., Spiessens C., Willemen D., De Loecker P., D'Hooghe T.M. (2011) The effect of modified quarter laser-assisted zona thinning on the implantation rate per embryo in frozen/vitrified-thawed/warmed embryo transfer cycles: a prospective randomized controlled trial. *Human Reprod.* 26:1997–2007

Figueira R., Setti A.S., Braga D.P.A.F., Iaconelli A.Jr., Borges E.Jr. (2011) Relevance of assisted hatching in an oocyte donation program using egg-cryobanking: a prospective randomized study. *Hum. Reprod.* 26 (Suppl. 1):i171. Abstracts of the 27th Annual Meeting of ESHRE

Geber S., Bossi R., Lisboa C.B., Valle M., Sampaio M. (2011) Laser confers less embryo exposure than acid tyrode for embryo biopsy in preimplantation genetic diagnosis cycles: a randomized study. *Reproductive Biology and Endocrinology* 9:58

Llanos B.A., Calderón G., López D., Fernández L., Nicolás M., Landeras J. (2011) Relationship between the thickness of the zona pellucida and the effect of Laser Assisted Hatching (LAH) on IVF/ICSI cycles in women older than 38 years. *Hum. Reprod.* 26 (Suppl. 1):i169. Abstracts of the 27th Annual Meeting of ESHRE

Magli M.C., Montag M., Köster M., Muzi L., Geraedts J., Collins J., Goossens V., Handyside A.H., Harper J., Repping S., Schmutzler A., Vesela K., Gianaroli L. (2011) Polar body array CGH for prediction of the status of the corresponding oocyte. Part II: technical aspects. *Hum Reprod.* 26:3181-3185

Mercader A., Buendía P., Delgado A., Escrich L., Amorocho B., Simón C., Remohí J., Pellicer A., Martin J., Rubio C. (2011) Novel indications for blastocyst biopsy in a preimplantation genetic diagnosis program. *Hum. Reprod.* 26 (Suppl. 1):i290-291. Abstracts of the 27th Annual Meeting of ESHRE

Norasing S., Atchajaroensatit P., Tawiwong W., Thepmanee O., Saenlao S., Aojanepong J. (2011) Clinical outcomes of fresh and vitrified blastocyst transfer regarding with or without biopsied for PGD on day 3. *Hum. Reprod.* 26 (Suppl. 1):i173. Abstracts of the 27th Annual Meeting of ESHRE

2012

- Aran B., Sole M., Rodriguez-Pizà I., Parriego M., Muñoz Y., Boada M., Barri P.N., Izpisúa J.C., Veiga A. (2012) Vitrified blastocysts from Preimplantation Genetic Diagnosis (PGD) as a source for human Embryonic Stem Cell (hESC) derivation. *J Assist Reprod Genet* 29:1013-1020
- de Cassia R., Figueira S., Paes de Almeida Ferreira Braga D., Setti A., Iaconelli Jr.A., Borges Jr. E. (2012) Relevance of assisted hatching in an oocyte donation programme using egg cryobanking: a prospective randomised study. *European Journal of Obstetrics & Gynecology and Reproductive Biology* 164:48–51
- Mondadori A.G., Ducatelli M.E., Mincman J., Gallo A., Coco F., Coco R. (2012) PGD by aCGH and QF-PCR in a couple with recurring aneuploidies. *JBRA Assist. Reprod.* 16:290-300
- Setti A.S., Figueira R.S., Braga D.P., Iaconelli A. Jr., Borges E. Jr. (2012) Gender incidence of intracytoplasmic morphologically selected sperm injection-derived embryos: a prospective randomized study. *Reprod Biomed Online* 24:420-423

2013

- Fernández R. M., Peciña A., Lozano-Arana M. D., García-Lozano J. C., Borrego S., Antiñolo G., (2013) Novel One-Step Multiplex PCR-Based Method for HLA Typing and PreimplantationalGenetic Diagnosis of β-Thalassemia. *BioMed Research International*. Volume 2013, Article ID 585106
- Nordhoff V., Schüring A.N., Krallmann C., Zitzmann M., Schlatt S., Kiesel L., Kliesch S. (2013) Optimizing TESE-ICSI by laser-assisted selection of immotile spermatozoa and polarization microscopy for selection of oocytes. *Andrology* 1:67-74
- 10 Yang Z., Salem S. A., Liu X., Kuang Y., Salem R. D., Liu J. (2013) Selection of euploid blastocysts for cryopreservation with array comparative genomic hybridization (aCGH) results in increased implantation rates in subsequent frozen and thawed embryo transfer cycles. *Molecular Cytogenetics* 6:32

2014

- Schmutzler A.G., Acar-Perk B., Weimer J., Salmassi A., Sievers K., Tobler M., Mettler L., Jonat W., Arnold N. (2014) Sham-controlled implantation after preimplantation genetic screening by polar body biopsy and FISH. *Arch Gynecol Obstet* 289:439-444.
- Wan C.Y., Song C., Diao L.H., Li G.G., Bao Z.J., Hu X.D., Zhang H.Z., Zeng Y. (2014) Laser-assisted hatching improves clinical outcomes of vitrified-warmed blastocysts developed from low-grade cleavage-stage embryos: a prospective randomized study. *Reprod Biomed Online* 28:582-589.

2015

- González-Ortega C., Cancino-Villarreal P., Anaya-Torres F.J., Pérez-Peña E., Gutiérrez-Gutiérrez A.M. (2015) [Impact of laser-assisted hatching (quarter technique) in poor prognosis patients]. *Ginecol Obstet* 83:670-679. Spanish. PubMed PMID: 27311165.
- Van Landuyt L., Polyzos N.P., De Munck N., Blockeel C., Van de Velde H., Verheyen G. (2015) A prospective randomized controlled trial investigating the effect of artificial shrinkage (collapse) on the implantation potential of vitrified blastocysts. *Hum Reprod.* 30:2509-2518. PubMed PMID: 26364080.

2016

Darwish E., Magdi Y. (2016) Artificial shrinkage of blastocoel using a laser pulse prior to vitrification improves clinical outcome. *J Assist Reprod Genet.* 33:467-471. PubMed PMID: 26843389

Kanyo K., Zeke J., Kriston R., Szücs Z., Cseh S., Somoskoi B., Konc J. (2016) The impact of laser-assisted hatching on the outcome of frozen human embryo transfer cycles. *Zygote* 24:742-747. PubMed PMID: 26957232.

Song W.Y., Wang X.G., Jin H.X., Yao G.D., Zhang X.Y., Shi S.L., Yang H.Y., Peng Z.F, Sun Y.P. (2016) Comparison of vitrified outcomes between human early blastocysts and expanded blastocysts. In *Vitro Cell Dev Biol Anim.* 52:522-529. PubMed PMID: 26956359.

Ueno S., Ezoe K., Yabuuchi A., Uchiyama K., Okimura T., Okuno T., Kobayashi T., Kato K. (2016) Complete zona pellucida removal from vitrified-warmed human blastocysts facilitates earlier in-vitro attachment and outgrowth. *Reprod Biomed Online* 33:140-148. PubMed PMID: 27263071.