

Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

Clinical Pregnancy

- UTILIZING SPERMATOZOA WITH THE HIGHEST GENOMIC INTEGRITY ENHANCES ICSI OUTCOME. Keating, D., Tavares, D., Rosenwaks, Z., Palermo, G. Fertility and Sterility Vol. 116, E67-E68(2021). doi: https://doi.org/10.1016/j.fertnstert.2021.07.190
- ICSI OUTCOMES USING SPERMATOZOA WITH OPTIMAL GENOMIC INTEGRITY Parrella, Alessandra. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Parrella-et-al-ASRM-2020-abstract-O-69.pdf
- SUPERIOR SPERM SELECTION? MICROFLUIDIC SPERM SORTING IMPROVES EUPLOID EMBRYO ONGOING PREGNANCY RATE COMPARED TO DENSITY GRADIENT CENTRIFUGATION Palmerola, Katherine L. et al. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Palmerola-et-al-ASRM-2020-abstract-P45.pdf
- EUPLOIDY RATES AND PREGNANCY OUTCOMES USING THE ZYMOT DEVICE FOR SPERM PREPARATION Anderson, Anthony R. et al. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Anderson-et-al-ASRM-2020-abstract-O-104.pdf
- COMPARISON OF MICROFLUID SPERM SORTING CHIP AND DENSITY GRADIENT METHODS FOR USE IN INTRAUTERINE INSEMINATION CYCLES Gode, F., Bodur T., Güntürkün F., et al. Fertility and Sterility. Volume 112, Issue 5, November 2019, Pages 842-848.e1. https://doi.org/10.1016/j.fertnstert.2019.06.037
- MICROFLUIDIC SELECTION OF SPERMATOZOA RETAINS CHROMATIN INTEGRITY AND YIELDS HIGHER PREGNANCY RATES
 Parrella A., Xie P., Keating D., et al. ASRM 2018. https://doi.org/10.1016/j.fertnstert.2018.07.957
- IMPROVING PREGNANCY RATE IN IVF CYCLES BY PREPARING SPERM VIA MICROFLUIDIC SPERM CHIPS Alagöz O., Özkara G., Koçer Yazıcı M. G., et al. ESHRE 2017 https://www.zymotfertility.com/wp-content/uploads/2020/01/improving-pregnancy-rate-in-IVF-cycles-f%C4%B1%C3%A7%C4%B1c%C4%B10%C4%9Flu-eshre-2017.pdf
- MACS Vs MICROFLUIDICS SPERM SORTING FOR RAISED SPERM DFI A RCT Durga Rao, Krishna Chaitanya M., Oasis Fertility – Hyderabad, India https://academic.oup.com/humrep/article/37/Supplement 1/deac104.108/6620288
- MICROFLUIDIC SPERM SELECTION DEVICE INCREASES CLINICAL PREGNANCY RATE IN IVF/PGT-A CYCLES C.Z. Berton¹, I. Yoshida¹, P. Carvalho¹, R. Souza¹, L.D.C. Onoda¹, E.B. Cordts², C.P. Barbosa².
 ¹Instituto Ideia Fértil de Saúde Reprodutiva, Embryology, São Paulo, Brazil, ² Instituto Ideia Fértil de Saúde Reprodutiva, Gynecology, São Paulo, Brazil.
 https://academic.oup.com/humrep/article/37/Supplement_1/deac107.115/6619906



Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

Embryo Euploidy

- A SPERM SELECTION TECHNIQUE TO IMPROVE EMBRYO PLOIDY. Keating, D., Tavares, D., Rosenwaks, Z., Palermo, G. Fertility and Sterility Vol. 116, P-53(2021). doi: https://doi.org/10.1016/j.fertnstert.2021.07.380
- ² UTILIZING SPERMATOZOA WITH THE HIGHEST GENOMIC INTEGRITY ENHANCES ICSI OUTCOME. Keating, D., Tavares, D., Rosenwaks, Z., Palermo, G. Fertility and Sterility Vol. 116, E67-E68(2021). doi: https://doi.org/10.1016/j.fertnstert.2021.07.190
- ICSI OUTCOMES USING SPERMATOZOA WITH OPTIMAL GENOMIC INTEGRITY Parrella, Alessandra. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Parrella-et-al-ASRM-2020-abstract-O-69.pdf
- SUPERIOR SPERM SELECTION? MICROFLUIDIC SPERM SORTING IMPROVES EUPLOID EMBRYO ONGOING PREGNANCY RATE COMPARED TO DENSITY GRADIENT CENTRIFUGATION Palmerola, Katherine L. et al. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Palmerola-et-al-ASRM-2020-abstract-P45.pdf
- MICROFLUIDIC SPERM SELECTION IS AN EFFECTIVE METHOD FOR IMPROVING EMBRYO DEVELOPMENTAL COMPETENCE IN IVF WITH OLDER PATIENTS

 Mastunga, Rie et al. ASRM 2020

 https://www.zymotfertility.com/wp-content/uploads/2021/01/Matsunaga-et-al-OCHI-YUME-Clinic-Nagoya-Japan-ASRM-2020-Poster-498.pdf
- EMBRYOLOGIC OUTCOMES IN INTRACYTOPLASMIC SPERM INJECTION (ICSI) CYCLES UTILIZING SPERM SELECTED VIA A MICROFLUIDICS DEVICE COMPARED TO STANDARD SELECTION Godiwala, Prachi et al. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Godiwala-et-al-ASRM-abstract-P96.pdf
- MICROFLUIDIC DEVICE-BASED SEMEN PREPARATION INFLUENCES EUPLOIDY RATES OF HUMAN BLASTOCYSTS. Beyhan, Z. et al. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Beyhan-P48.pdf
- EUPLOIDY RATES AND PREGNANCY OUTCOMES USING THE ZYMOT DEVICE FOR SPERM PREPARATION Anderson, Anthony R. *et al.* ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Anderson-et-al-ASRM-2020-abstract-O-104.pdf
- ⁹ A TREATMENT APPROACH FOR COUPLES WITH DISRUPTED SPERM DNA INTEGRITY AND RECURRENT ART FAILURE Parrella, A., Keating, D., Cheung, S. *et al.* J Assist Reprod Genet 36, 2057–2066 (2019). https://doi.org/10.1007/s10815-019-01543-5
- A THERAPEUTIC APPROACH FOR COUPLES WITH COMPROMISED SPERM DNA INTEGRITY AND A HISTORY OF ANEUPLOID EMBRYOS Petrini A., Parrella A., Xie P., et al. ESHRE 2019 https://www.zymotfertility.com/wp-content/uploads/2020/01/ESHRE-2019-Palermo-Sperm-DNA-Integrity-ZyMot-850.pdf
- EFFECTS OF THE MICROFLUIDIC CHIP TECHNIQUE IN SPERM SELECTION FOR INTRACYTOPLASMIC SPERM INJECTION FOR UNEXPLAINED INFERTILITY: A PROSPECTIVE, RANDOMIZED CONTROLLED TRIAL



Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

Embryo Euploidy

Yetkinel, S., Kilicdag, E.B., Aytac, P.C. et al. J Assist Reprod Genet 36, 403–409 (2019). https://doi.org/10.1007/s10815-018-1375-2

- LABORATORY AND CLINICAL OUTCOMES OF SPERMATOZA PREPARED THROUGH A MICROFLUIDIC DEVICE: A PROSPECTIVE PILOT SIBLING OOCYTE STUDY Akcay B., Findikli N., Aksoy T., et al. ASRM 2018. https://doi.org/10.1016/j.fertnstert.2018.07.958
- A MICROFLUIDIC DEVICE FOR SELECTING THE MOST PROGRESSIVELY MOTILE SPERMATOZOA YIELDS A HIGHER RATE OF EUPLOID EMBRYOS

 Parrella A., Choi D., Keating D., et al. ASRM 2018. https://doi.org/10.1016/j.fertnstert.2018.07.955
- IMPACT OF MICROFLUIDIC SPERM SORTING ON EMBRYO QUALITY AND COMPREHENSIVE CHROMOSOME SCREENING OUTCOMES OF COUPLES WITH REPEATED IMPLANTATION FAILURE Pabuccu E., Pabuccu R., Sertyel S., et al. ESHRE 2018 https://www.zymotfertility.com/wp-content/uploads/2020/01/impact-of-microfluidic-sperm-sorting-sahin-eshre-2018.pdf
- A PROPOSED METHOD TO MINIMIZE MALE GAMETE CONTRIBUTION TO ANEUPLOIDY IN THE EMBRYO COHORT Melnick A., Parrella A., Cheung S., et al. ESHRE 2018 https://www.zymotfertility.com/wp-content/uploads/2020/01/proposed-method-to-minimize-palermo-eshre-2018.pdf
- DOES ZYMOT SPERM SEPARATION IMPROVE EMBRYO DEVELOPMENT OUTCOMES WHEN APPLIED TO ALL INFERTILITY PATIENTS COMPARED TO DENSITY GRADIENT WASHING OR SURGICALLY ATTAINED SPERM? Mitchel C. Schiewe, MS, PhD, Ahmad Morsi Abu Maizar, M.Sc, Melanie Nordbak, BS, Michelle Alcoer, BS, Andrew W. Dinsmore, BS, Claudia De Romana, BS, Pedro J. Toledo, BS, Kelly Baek, MD, Guy E. Ringler, MD, Korine Chung, MD, Richard Marrs, MD California Fertility Partners, Los Angeles, CA. https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-1446634
- DOES MICROFLUIDIC SPERM SORTING IMPROVE EMBRYO DEVELOPMENT AND EUPLOIDY RATES IN PATIENTS UNDERGOING ICSI? Alex Robles, M.D., ¹ Evan Akiva Reshef, MD, ¹ Robert W. Prosser, MSc, ¹Eric J. Forman, M.D., ² Zev Williams, M.D., PhD. ¹ Columbia University Fertility Center, New York, NY; ²Columbia University Fertility Center. https://www.fertstert.org/article/S0015-0282(21)00991-2/fulltext#:~:text=a%20new%20tab-,Conclusions,rates%20and%20higher%20euploidy%20rates.
- A TREATMENT APPROACH FOR COUPLES WITH DISRUPTED SPERM DNA INTEGRITY AND RECURRENT ART FAILURE. Alessandra Parrella, Derek Keating, Stephanie Cheung, Philip Xie, Joshua D. Stewart, Zev Rosenwaks, Gianpiero D. Palermo
 Journal of Assisted Reproduction and Genetics volume 36, pages2057–2066 (2019).
 https://link.springer.com/article/10.1007/s10815-019-01543-5



Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

Fertilization / Blastulation

- UTILIZING SPERMATOZOA WITH THE HIGHEST GENOMIC INTEGRITY ENHANCES ICSI OUTCOME. Keating, D., Tavares, D., Rosenwaks, Z., Palermo, G. Fertility and Sterility Vol. 116, E67-E68(2021). doi: https://doi.org/10.1016/j.fertnstert.2021.07.190
- ² ICSI OUTCOMES USING SPERMATOZOA WITH OPTIMAL GENOMIC INTEGRITY
 Parrella, Alessandra. ASRM 2020
 https://www.zymotfertility.com/wp-content/uploads/2021/01/Parrella-et-al-ASRM-2020-abstract-O-69.pdf
- EMBRYOLOGIC OUTCOMES IN INTRACYTOPLASMIC SPERM INJECTION (ICSI) CYCLES UTILIZING SPERM SELECTED VIA A MICROFLUIDICS DEVICE COMPARED TO STANDARD SELECTION Godiwala, Prachi et al. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Godiwala-et-al-ASRM-abstract-P96.pdf
- LABORATORY AND CLINICAL OUTCOMES OF SPERMATOZA PREPARED THROUGH A MICROFLUIDIC DEVICE: A PROSPECTIVE PILOT SIBLING OOCYTE STUDY Akcay B., Findikli N., Aksoy T., et al. ASRM 2018. https://doi.org/10.1016/j.fertnstert.2018.07.958
- A MICROFLUIDIC DEVICE FOR SELECTING THE MOST PROGRESSIVELY MOTILE SPERMATOZOA YIELDS A HIGHER RATE OF EUPLOID EMBRYOS

 Parrella A., Choi D., Keating D., et al. ASRM 2018. https://doi.org/10.1016/j.fertnstert.2018.07.955
- IMPACT OF MICROFLUIDIC SPERM SORTING ON EMBRYO QUALITY AND COMPREHENSIVE CHROMOSOME SCREENING OUTCOMES OF COUPLES WITH REPEATED IMPLANTATION FAILURE Pabuccu E., Pabuccu R., Sertyel S., et al. ESHRE 2018

 https://www.zymotfertility.com/wp-content/uploads/2020/01/impact-of-microfluidic-sperm-sorting-sahin-eshre-2018.pdf
- ⁷ SPERM DNA FRAGMENTATION AND FUNCTIONAL FEATURES OF HUMAN SPERM SELECTED BY MICROFLUIDIC SORTING FOR CLINICAL USE. Nami Morishita, Ph.D., Natsumi Hyogo, M.A., Yukari Kurasaki, B.A., Rio Sakuma, M.A., Hiromi Morita, M.A., Megumi Miura, M.A, Yuki Kobayashi, B.A., Rie Matsunaga, M.A., Tomoko Maeda, Ph.D., Hiroshi Makino, Ph.D., Masanori Ochi, Ph.D., Toshitaka Horiuchi, Ph.D. OCHI YUME CLINIC NAGOYA, Nagoya, Japan. https://www.fertstert.org/article/S0015-0282(21)01361-3/fulltext
- DOES ZYMOT SPERM SEPARATION IMPROVE EMBRYO DEVELOPMENT OUTCOMES WHEN APPLIED TO ALL INFERTILITY PATIENTS COMPARED TO DENSITY GRADIENT WASHING OR SURGICALLY ATTAINED SPERM? Mitchel C. Schiewe, MS, PhD, Ahmad Morsi Abu Maizar, M.Sc, Melanie Nordbak, BS, Michelle Alcoer, BS, Andrew W. Dinsmore, BS, Claudia De Romana, BS, Pedro J. Toledo, BS, Kelly Baek, MD, Guy E. Ringler, MD, Korine Chung, MD, Richard Marrs, MD California Fertility Partners, Los Angeles, CA. https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-1446634
- DOES MICROFLUIDIC SPERM SORTING IMPROVE EMBRYO DEVELOPMENT AND EUPLOIDY RATES IN PATIENTS UNDERGOING ICSI? Alex Robles, M.D., Evan Akiva Reshef, MD, Robert W. Prosser, MSc, Fric J. Forman, M.D., Zev Williams, M.D., PhD. Columbia University Fertility Center, New York, NY; Columbia University Fertility Center. https://www.fertstert.org/article/S0015-0282(21)00991-2/fulltext#:~:text=a%20new%20tab,Conclusions,rates%20and%20higher%20euploidy%20rates.



Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

Fertilization / Blastulation

FERTILIZATION RATE AND EMBRYONIC DEVELOPMENT AFTER INTRACYTOPLASMIC SPERM INJECTION USING A MICROFLUIDIC SPERM SELECTION DEVICE WITHOUT CENTRIFUGATION Haruhisa Tsuji¹, Hiroya Kitasaka¹, Noritaka Fukunaga^{1,2} and Yoshimasa Asada^{1,2}

Asada Ladies Clinic, Aichi, Japan, Asada Institute for Reproductive Medicine, Aichi, Japan https://academic.oup.com/humrep/article/37/Supplement_1/deac107.045/6620379



Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

DNA Fragmentation - Genomic Integrity

- A SPERM SELECTION TECHNIQUE TO IMPROVE EMBRYO PLOIDY. Keating, D., Tavares, D., Rosenwaks, Z., Palermo, G. Fertility and Sterility Vol. 116, P-53(2021). doi: https://doi.org/10.1016/j.fertnstert.2021.07.380
- UTILIZING SPERMATOZOA WITH THE HIGHEST GENOMIC INTEGRITY ENHANCES ICSI OUTCOME. Keating, D., Tavares, D., Rosenwaks, Z., Palermo, G. Fertility and Sterility Vol. 116, E67-E68(2021). doi: https://doi.org/10.1016/j.fertnstert.2021.07.190
- ICSI OUTCOMES USING SPERMATOZOA WITH OPTIMAL GENOMIC INTEGRITY Parrella, Alessandra. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Parrella-et-al-ASRM-2020-abstract-O-69.pdf
- SUPERIOR SPERM SELECTION? MICROFLUIDIC SPERM SORTING IMPROVES EUPLOID EMBRYO ONGOING PREGNANCY RATE COMPARED TO DENSITY GRADIENT CENTRIFUGATION Palmerola, Katherine L. *et al.* ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Palmerola-et-al-ASRM-2020-abstract-P45.pdf
- A TREATMENT APPROACH FOR COUPLES WITH DISRUPTED SPERM DNA INTEGRITY AND RECURRENT ART FAILURE Parrella, A., Keating, D., Cheung, S. et al. J Assist Reprod Genet 36, 2057–2066 (2019). https://doi.org/10.1007/s10815-019-01543-5
- A THERAPEUTIC APPROACH FOR COUPLES WITH COMPROMISED SPERM DNA INTEGRITY AND A HISTORY OF ANEUPLOID EMBRYOS
 Petrini A., Parrella A., Xie P., et al. ESHRE 2019
 https://www.zymotfertility.com/wp-content/uploads/2020/01/ESHRE-2019-Palermo-Sperm-DNA-Integrity-ZyMot-850.pdf
- MICROFLUIDIC SPERM SELECTION BY THE ZYMŌT SPERM SEPARATION DEVICE CONCENTRATES SPERM WITH SIGNIFICANTLY LESS DNA DAMAGE FOR SUBSEQUENT ART PROCEDURES Hodge D., Vermilyea M., O'Leary R., et al. ESHRE 2019 https://www.zymotfertility.com/wp-content/uploads/2020/01/ESHRE-2019-Hodge-Sperm-DNA-damage.pdf
- MICROFLUIDIC SPERM SELECTION ENHANCES ICSI OUTCOMES BY SELECTING SPERMATOZOA WITH THE HIGHEST CHROMATIN INTEGRITY
 Hancock K., Parrella A., Goldman M., et al. ESHRE 2019
 https://www.zymotfertility.com/wp-content/uploads/2020/01/ESHRE-2019-Palermo-ICSI-Outcomes.pdf
- SPERM DNA FRAGMENTATION (SDF) WAS MOST EFFECTIVELY IMPROVED BY A SPERM SEPARATION DEVICE COMPARED TO DIFFERENT GRADIENT AND SWIMUP METHODS

 Broussard A., Leader B., Tirado E. et al. Fertility and Sterility. April 2019 Volume 111, Issue 4, Supplement, Page e15. https://doi.org/10.1016/j.fertnstert.2019.02.054
- MICROFLUIDIC SELECTION OF SPERMATOZOA RETAINS CHROMATIN INTEGRITY AND YIELDS HIGHER PREGNANCY RATES
 Parrella A., Xie P., Keating D., et al. ASRM 2018. https://doi.org/10.1016/j.fertnstert.2018.07.957
- A MICROFLUIDIC DEVICE FOR SELECTING THE MOST PROGRESSIVELY MOTILE SPERMATOZOA YIELDS A HIGHER RATE OF EUPLOID EMBRYOS



Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

DNA Fragmentation - Genomic Integrity

Parrella A., Choi D., Keating D., et al. ASRM 2018. https://doi.org/10.1016/j.fertnstert.2018.07.955

- MICROFLUIDIC SORTING SELECTS SPERM FOR CLINICAL USE WITH REDUCED DNA DAMAGE Quinn M. M., Jalalian L., Ribeiro S., et al. Human Reproduction, Volume 33, Issue 8, August 2018, Pages 1388–1393. https://doi.org/10.1093/humrep/dey239
- IMPACT OF MICROFLUIDIC SPERM SORTING ON EMBRYO QUALITY AND COMPREHENSIVE CHROMOSOME SCREENING OUTCOMES OF COUPLES WITH REPEATED IMPLANTATION FAILURE Pabuccu E., Pabuccu R., Sertyel S., et al. ESHRE 2018 https://www.zymotfertility.com/wp-content/uploads/2020/01/impact-of-microfluidic-sperm-sorting-sahin-eshre-2018.pdf
- SELECTION OF SPERMATOZOA WITH HIGHER CHROMATIN INTEGRITY THROUGH A MICROFLUIDICS DEVICE Parrella A., Pereira N., Chow S., et al. ESHRE 2017 https://www.zymotfertility.com/wp-content/uploads/2020/01/selection-of-spermatozoa-microfluidics-device-palermo-eshre-2017-1.pdf
- SELECTION OF FUNCTIONAL HUMAN SPERM WITH HIGHER DNA INTEGRITY AND FEWER REACTIVE OXYGEN SPECIES
 Asghar W., Velasco V., Kingsley J.L., et al. Advanced Healthcare Materials. Volume 3, Issue 10, October 2014. https://doi.org/10.1002/adhm.201400058
- CAN MICROFLUIDIC SPERM SORTING HELP SEPARATION OF SPERMS WITH GOOD QUALITY DNA? Krishna Mantravadi, Sr. MBBS, PGDHOM, Masters in clinical embryology, Durga Gedela Rao, Sr. MRCOG Oasis fertility, Hyderabad, India. https://www.fertstert.org/article/S0015-0282(21)01369-8/fulltext
- SPERM DNA FRAGMENTATION AND FUNCTIONAL FEATURES OF HUMAN SPERM SELECTED BY MICROFLUIDIC SORTING FOR CLINICAL USE. Nami Morishita, Ph.D., Natsumi Hyogo, M.A., Yukari Kurasaki, B.A., Rio Sakuma, M.A., Hiromi Morita, M.A., Megumi Miura, M.A, Yuki Kobayashi, B.A., Rie Matsunaga, M.A., Tomoko Maeda, Ph.D., Hiroshi Makino, Ph.D., Masanori Ochi, Ph.D., Toshitaka Horiuchi, Ph.D. OCHI YUME CLINIC NAGOYA, Nagoya, Japan.
 - https://www.fertstert.org/article/S0015-0282(21)01361-3/fulltext
- DOES ZYMOT SPERM SEPARATION IMPROVE EMBRYO DEVELOPMENT OUTCOMES WHEN APPLIED TO ALL INFERTILITY PATIENTS COMPARED TO DENSITY GRADIENT WASHING OR SURGICALLY ATTAINED SPERM? Mitchel C. Schiewe, MS, PhD, Ahmad Morsi Abu Maizar, M.Sc, Melanie Nordbak, BS, Michelle Alcoer, BS, Andrew W. Dinsmore, BS, Claudia De Romana, BS, Pedro J. Toledo, BS, Kelly Baek, MD, Guy E. Ringler, MD, Korine Chung, MD, Richard Marrs, MD California Fertility Partners, Los Angeles, CA. https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-1446634
- MICROFLUIDIC SPERM SEPARATION DEVICE DRAMATICALLY LOWERS DFI. M. Bastuba, M. Cohen, A. Bastuba, P. Campbell. Male Fertility and Sexual Medicine Specialists, San Diego, CA, USA; Fertility Center of California, San Diego, CA, USA; Department of Urology, Naval Medical Center San Diego, San Diego, CA, USA. https://www.fertstert.org/article/S0015-0282(20)30188-6/fulltext



Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

DNA Fragmentation - Genomic Integrity

- A TREATMENT APPROACH FOR COUPLES WITH DISRUPTED SPERM DNA INTEGRITY AND RECURRENT ART FAILURE. Alessandra Parrella, Derek Keating, Stephanie Cheung, Philip Xie, Joshua D. Stewart, Zev Rosenwaks, Gianpiero D. Palermo
 - Journal of Assisted Reproduction and Genetics volume 36, pages2057–2066 (2019)
- MACS VS MICROFLUIDICS SPERM SORTING FOR RAISED SPERM DFI A RCT Durga Rao, Krishna Chaitanya M., Oasis Fertility – Hyderabad, India https://academic.oup.com/humrep/article/37/Supplement_1/deac104.108/6620288
- MALE AGE IS ASSOCIATED WITH SPERM DNA INTEGRITY: SELECTION OF HIGH DNA INTEGRITY SPERM BY MICROFLUIDICS SORTING IS CRITICAL TO CLINICAL OUTCOMES IN OLDER PATIENTS

 Nami Morishita, Megumi Miura, Yuki Kobayashi, Rie Matsunaga, Tomoko Maeda, Masanori Ochi, Toshitaka Horiuchi, Ochi Yume Clinic Nagoya, Nagoya, Japan https://academic.oup.com/humrep/article/37/Supplement 1/deac107.036/6619771
- ASSESSING THE INTEGRITY OF THE MALE GAMETE GENOME TO IMPROVE ART CLINICAL OUTCOMES Kocur OM., Xie P., Sung C., Souness S., Rosenwaks Z., Palermo GD., Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, New York, New York USA https://academic.oup.com/humrep/article/37/Supplement 1/deac107.067/6620626
- MICROFLUIDIC-BASED DEVICE SELECTS SPERM WITH LESS DNA DAMAGE AND HIGHER MOTILITY, WHAT ELSE? Pardiñas ML.¹, De los Santos JM.², Viloria T.², Ortega-Jaen D.¹, Martin A.¹, Rivera-Egea R.², De los Santos MJ.^{1,2}, ¹IVI Foundation-IIS La Fe, Research and Innovation, Valencia, Spain, ²IVI RMA Valencia, IVF Laboratory, Valencia, Spain. https://academic.oup.com/humrep/article/37/Supplement_1/deac107.078/6620717
- GENOTYPIC SPERM SORTING: A LESS INVASIVE "ART" TO PREVENT GENETIC DISORDERS IN NEWBORNS

 *1,3Olumide O. Adenmosun, PhD, MBA (oadenmos@fau.edu) ²Waseem Asghar, PhD, ³Michael Matilsky, PhD,
 HCLD and ¹James Kumi-Diaka, DVM, PhD, ¹Florida Atlantic University, Biological Sciences, Davie, USA, ²Florida
 Atlantic University, Electrical Engineering and Computer Science, Boca Raton, USA, ³Boca Fertility,
 Andrology/Embryology Laboratory, Boca Raton, USA

https://academic.oup.com/humrep/article/37/Supplement_1/deac107.086/6620459



Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

Centrifugation / Density Gradient Centrifugation

- SPERM DNA FRAGMENTATION (SDF) WAS MOST EFFECTIVELY IMPROVED BY A SPERM SEPARATION DEVICE COMPARED TO DIFFERENT GRADIENT AND SWIMUP METHODS

 Broussard A., Leader B., Tirado E. et al. Fertility and Sterility. April 2019 Volume 111, Issue 4, Supplement, Page e15. https://doi.org/10.1016/j.fertnstert.2019.02.054
- MICROFLUIDIC SORTING SELECTS SPERM FOR CLINICAL USE WITH REDUCED DNA DAMAGE
 Quinn M. M., Jalalian L., Ribeiro S., et al. Human Reproduction, Volume 33, Issue 8, August 2018, Pages 1388–1393. https://doi.org/10.1093/humrep/dey239
- DOES ZYMOT SPERM SEPARATION IMPROVE EMBRYO DEVELOPMENT OUTCOMES WHEN APPLIED TO ALL INFERTILITY PATIENTS COMPARED TO DENSITY GRADIENT WASHING OR SURGICALLY ATTAINED SPERM? Mitchel C. Schiewe, MS, PhD, Ahmad Morsi Abu Maizar, M.Sc, Melanie Nordbak, BS, Michelle Alcoer, BS, Andrew W. Dinsmore, BS, Claudia De Romana, BS, Pedro J. Toledo, BS, Kelly Baek, MD, Guy E. Ringler, MD, Korine Chung, MD, Richard Marrs, MD California Fertility Partners, Los Angeles, CA. https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-1446634
- FERTILIZATION RATE AND EMBRYONIC DEVELOPMENT AFTER INTRACYTOPLASMIC SPERM INJECTION USING A MICROFLUIDIC SPERM SELECTION DEVICE WITHOUT CENTRIFUGATION

 Haruhisa Tsuji¹, Hiroya Kitasaka¹, Noritaka Fukunaga¹,² and Yoshimasa Asada¹,²

 ¹ Asada Ladies Clinic, Aichi, Japan, ² Asada Institute for Reproductive Medicine, Aichi, Japan https://academic.oup.com/humrep/article/37/Supplement_1/deac107.045/6620379
- ASSESSING THE INTEGRITY OF THE MALE GAMETE GENOME TO IMPROVE ART CLINICAL OUTCOMES Kocur OM., Xie P., Sung C., Souness S., Rosenwaks Z., Palermo GD., Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, New York, New York USA https://academic.oup.com/humrep/article/37/Supplement_1/deac107.067/6620626
- MICROFLUIDIC-BASED DEVICE SELECTS SPERM WITH LESS DNA DAMAGE AND HIGHER MOTILITY, WHAT ELSE? Pardiñas ML.¹, De los Santos JM.², Viloria T.², Ortega-Jaen D.¹, Martin A.¹, Rivera-Egea R.², De los Santos MJ.^{1,2}, ¹IVI Foundation-IIS La Fe, Research and Innovation, Valencia, Spain, ²IVI RMA Valencia, IVF Laboratory, Valencia, Spain. https://academic.oup.com/humrep/article/37/Supplement_1/deac107.078/6620717



Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

Reactive Oxygen Species (ROS) / Cellular Stress

- SPERM DNA FRAGMENTATION (SDF) WAS MOST EFFECTIVELY IMPROVED BY A SPERM SEPARATION DEVICE COMPARED TO DIFFERENT GRADIENT AND SWIMUP METHODS

 Broussard A., Leader B., Tirado E. et al. Fertility and Sterility. April 2019 Volume 111, Issue 4, Supplement, Page e15. https://doi.org/10.1016/j.fertnstert.2019.02.054
- SELECTION OF FUNCTIONAL HUMAN SPERM WITH HIGHER DNA INTEGRITY AND FEWER REACTIVE OXYGEN SPECIES
 Asghar W., Velasco V., Kingsley J.L., et al. Advanced Healthcare Materials. Volume 3, Issue 10, October 2014. https://doi.org/10.1002/adhm.201400058
- MICROFLUIDIC SPERM SEPARATION DEVICE DRAMATICALLY LOWERS DFI. M. Bastuba, ¹M. Cohen, ¹A. Bastuba, ²P. Campbell. ³ ¹Male Fertility and Sexual Medicine Specialists, San Diego, CA, USA; ²Fertility Center of California, San Diego, CA, USA; ³Department of Urology, Naval Medical Center San Diego, San Diego, CA, USA. https://www.fertstert.org/article/S0015-0282(20)30188-6/fulltext



Below is a presentation of current publications relevant to ART procedure outcomes associated with use of ZyMōt devices for sperm sample preparation. These publications are categorized according to the ART procedures outcomes topics shown to facilitate review of the literature by topic. This is intended to help you decide how to use ZyMōt devices in your fertility laboratory and clinical practice.

IUI Outcomes / Patient Outcomes

- COMPARISON OF MICROFLUID SPERM SORTING CHIP AND DENSITY GRADIENT METHODS FOR USE IN INTRAUTERINE INSEMINATION CYCLES
 Gode, F., Bodur T., Güntürkün F., et al. Fertility and Sterility. Volume 112, Issue 5, November 2019, Pages 842-848.e1. https://doi.org/10.1016/j.fertnstert.2019.06.037
- UTILIZING SPERMATOZOA WITH THE HIGHEST GENOMIC INTEGRITY ENHANCES ICSI OUTCOME. Keating, D., Tavares, D., Rosenwaks, Z., Palermo, G. Fertility and Sterility Vol. 116, E67-E68(2021). doi: https://doi.org/10.1016/j.fertnstert.2021.07.190
- ICSI OUTCOMES USING SPERMATOZOA WITH OPTIMAL GENOMIC INTEGRITY Parrella, Alessandra. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Parrella-et-al-ASRM-2020-abstract-O-69.pdf
- ⁴ EUPLOIDY RATES AND PREGNANCY OUTCOMES USING THE ZYMOT DEVICE FOR SPERM PREPARATION Anderson, Anthony R. et al. ASRM 2020 https://www.zymotfertility.com/wp-content/uploads/2021/01/Anderson-et-al-ASRM-2020-abstract-O-104.pdf
- A TREATMENT APPROACH FOR COUPLES WITH DISRUPTED SPERM DNA INTEGRITY AND RECURRENT ART FAILURE Parrella, A., Keating, D., Cheung, S. et al. J Assist Reprod Genet 36, 2057–2066 (2019). https://doi.org/10.1007/s10815-019-01543-5
- A THERAPEUTIC APPROACH FOR COUPLES WITH COMPROMISED SPERM DNA INTEGRITY AND A HISTORY OF ANEUPLOID EMBRYOS
 Petrini A., Parrella A., Xie P., et al. ESHRE 2019
 https://www.zymotfertility.com/wp-content/uploads/2020/01/ESHRE-2019-Palermo-Sperm-DNA-Integrity-ZyMot-850.pdf
- LABORATORY AND CLINICAL OUTCOMES OF SPERMATOZA PREPARED THROUGH A MICROFLUIDIC DEVICE: A PROSPECTIVE PILOT SIBLING OOCYTE STUDY Akcay B., Findikli N., Aksoy T., et al. ASRM 2018. https://doi.org/10.1016/j.fertnstert.2018.07.958
- MALE AGE IS ASSOCIATED WITH SPERM DNA INTEGRITY: SELECTION OF HIGH DNA INTEGRITY SPERM BY MICROFLUIDICS SORTING IS CRITICAL TO CLINICAL OUTCOMES IN OLDER PATIENTS

 Nami Morishita, Megumi Miura, Yuki Kobayashi, Rie Matsunaga, Tomoko Maeda, Masanori Ochi, Toshitaka Horiuchi, Ochi Yume Clinic Nagoya, Nagoya, Japan https://academic.oup.com/humrep/article/37/Supplement_1/deac107.036/6619771
- OPTIMIZING SPERM SELECTION AND REPRODUCTIVE OUTCOMES BY MICROFLUIDICS FOR COUPLES WITH RAISED DFI
 - G. Gedela, Durga Rao, Krishna Chaitanya M., Oasis Fertility Hyderabad, India https://academic.oup.com/humrep/article/37/Supplement_1/deac107.005/6619929