

Assoc. Prof. Dr. Evrim Unsal

**PERSONAL INFO**

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Place and Date of Birth: Kayseri / 1975 Nationality: Turkish

Civil status: Married

**CARREER SUMMARY**

Since 1997, I have managed over 30,000 IVF laboratory cycles during my career as an Embryologist. I have high experience in egg retrieval, oocyte denudation, microinjection and embryo culture applications within the routine practices of the embryology laboratory. Within the scope of cryopreservation applications, I have applied freezing technologies from slow freezing to vitrification, which have been within the scope of routine practice since 1997. I participated in the multicentre studies of Kitazato company in high security straw application and took part as an instructor in the workshops held within the scope of practitioner training. Over the last 15 years of my professional life, I have intensified my studies on Preimplantation Genetic Tests and have performed a lot of patient applications on embryo biopsy and tubing protocols. Since my place of work has PGT genetic services, I have personally visited many IVF centres and performed biopsy applications and provided on-site biopsy training to embryologists. As a board member of a professional association, I have given around 20 biopsy and PGT applications hands-on courses in different cities of Turkey within the scope of the activities of the association.

**ACADEMIC DEGREES**

Assoc. Prof. Dr., Medical Genetics: Yüksek İhtisas University, Faculty of Medicine, Ankara, Turkey 2018-

Assist. Prof. Dr., Medical Genetics: Yeni Yüzyıl University, Faculty of Medicine, Istanbul, Turkey 2015-2018

Assist. Prof. Dr, Histology & Embryology, Bilim University, Faculty of Medicine, Istanbul, Turkey 2011-2015

**EDUCATION**

PhD, Biotechnology: Ankara University, Institute of Biotechnology, Ankara, Turkey 2003-2007

MSc, Histology & Embryology, Gazi University, Faculty of Medicine, Ankara, Turkey 2000-2002

BS, Biology: Ankara University, Faculty of Sciences, Ankara, Turkey 1993-1997

**PROFESSIONAL EXPERIENCE**

* Mikrogen Genetic Diagnosis Laboratory- Molecular Genetic Laboratory / Laboratory Manager / 2005-
* Genart Woman Health & Reproductive Biotechnology Center / Embryology & Andrology Laboratories / Laboratory Director / 2002-
* IVF Laboratory / Gazi University, Faculty of Medicine / Laboratory Director/ 2000-2002
* IVF Laboratory / Başkent University, Faculty of Medicine / Embryologist/ 1997-2000

**PROFESSIONAL CERTIFICATION**

* Assisted Reproductive Treatment Methods Training Certificate given by the Ministry of Health in order to be a laboratory supervisor in IVF centers, the Certificate Program lasts for 6 months. After a 3-month theoretical training program, routine embryology and andrology techniques in IVF laboratories are given practically for 3 months. At the end of this certificate program, which lasts for a total of 6 months, qualification is given with an exam and the trainees gain the right to work as an in vitro fertilization laboratory supervisor. Ankara University Faculty of Medicine, Department of Histology Embryology and Ankara University Faculty of Medicine IVF Unit, Certificate, 17.09.2001 -18.03.2002 (National)
* Assisted Reproductive Treatment Methods ICSI Training Certificate. The ICSI studies conducted in Turkey were evaluated by the scientific commission and certified by the Ministry of Health of the Republic of Turkey. GenArt Women's Health IVF and Reproductive Biotechnology Center Certificate, 01.10.2002 -12.10.2005 (National)
* TS EN ISO 15189 ILAC - Technical Auditor
  + TS EN ISO 15189 Medical Laboratories – Requirements for Quality and Competence Standards Training Certificate. 22.12.2016
  + Internal Auditor Training Certificate. 23.12.2016
  + Method Validation / Verification and Measurement Uncertainty Training Certificate for Medical Laboratories. 24-25.12.2016

**PROJECT EXPERIENCE**

* End-to-end Solution to Inherited Disease Screening from Wet-Lab to Bioinformatics / EUROKA-European Union / No : 2022- 17433 CarrierCheck / overall budget : €2,297,907.00/ 01.11.2022-01.11.2024
* Raising Awareness on the State of the Art Reproductive Technologies for Rare Diseases: From Screening to Diagnosis/ European Joint Program on Rare Diseases (EJP RD) under the “Networking Support Scheme 2022”/ NSSS Application/ overall budget : €30.000/ No: 40-46300-98-1088: / 2022-2023
* Development of an Effective Diagnostic Method Based on DNA-Seq and RNA-Seq Data for Rare Genetic Diseases / TÜBİTAK TEYDEB-1501 / overall budget : €74.272 / No: 3210640/ 01.07.2021-30.06.2023
* Ankara Development Agencies Medical devices financing support program for 2021/ Development of Consanguineous Marriages and Premarital Sequencing Based Rare Disease Screening Kit / overall budget : €99.029 / 2022-2024
* MicroRNA-based biomarkers using minimally invasive methods use in the estimation of the endometrial implantation window/ TÜBİTAK TEYDEB-1501 / overall budget : €59.417 /No: 5180087 / 01.11.2019-31.10.2021
* Immunohistochemical determination of nitric oxide in human testicular tissue and evaluation of its effect on spermatogenesis./ Istanbul Bilim University, Faculty of Medicine/ overall budget: €59.417 / BAPKO Project/ 2012-2013

**CONSULTED POSTGRADUATE THESES**

* Gamze Bereketoglu “Examination of DNA Damage by Sperm Chromatin Distribution Method after Pentoxifylline and Platelet Activating Factor (PAF) Application”, Istanbul Bilim University, 2013
* Sıla Ozlem Paltun “Ultrastructural Investigation of the Effects of Piezo-Electric and Strontium Methods on Oocyte Activation”. 2014
* Aysegul Ilkan “Immunfluorescence Display of Phospholipase C-Zeta and Determination of PLCζ Gene Mutations in Sperm Samples Causing Low Fertilization” 2014

**BOOKS & BOOK CHAPTERS**

* Cell Biology and Histology, Assist. Editor, Istanbul Tıp Kitapevi (Editor)
* Güncel Üreme Endokrinolojisi, Cerrahisi ve İnfertilite Kitabı III. Editör : Erol Tavmergen **-** IVF öncesi taşıyıcı tarama testleri(Baltaci V, **Unsal E.), 2023**
* Clinical and Reproductive Genetics Handbook for Clinicians, Türkiye Klinikleri, 2019
* Thalassemia Clinical Management Guide. Chapter Name: Genetic Basis, Pathophysiology and Diagnosis of the Disease, 2017
* Cell Biology and Histology, Chapter Name: (Nucleus) (2015)., Istanbul Tıp Kitapevi, Editor: Prof. Dr. Canan Hürdag, **Assoc. Prof. Dr. Unsal E,** Assoc. Prof. Dr.Esra Cikler Dülger, ISBN:9786054949526, Turkish (Textbook), (Control No: 2631055), 2015
* In Vitro Fertilisation – Key Elder and Bryan Dale 3rd Edition Book Translation; Preimplantation Genetic Diagnosis Chapter 14, Agust 2013

**PUBLICATIONS**

* Özer L, Aktuna S, **Unsal E**, Ünal MA, Sahin G, Baltaci V. A novel SLC35D1 variant causing milder phenotype of Schneckenbecken dysplasia in a large pedigree. Am J Med Genet A. 2022 Oct;188(10):3078-3083. doi: 10.1002/ajmg.a.62939. Epub 2022 Aug 7. PMID: 35934917.
* Kartal, B, Hatipoğlu, M. T, Kayişli, Ü. A, Kiliç, S. H, **Unsal, E**, & Özoğul, C. (2019). Investigation of Endoplasmic Reticulum Signal Proteins in Cumulus Cells with Normal, Hyperresponsive, Hyporesponsive and Polycystic Ovary Syndromes. International Journal of Health Services Research and Policy, 4(2), 74-83.
* Özer L, Aktuna S, **Unsal E**, Baltaci A, Baltaci V. An Incidental Detection of a Cryptic Complex Chromosome Rearrangement Found During NGS Based PGT-SR: A Case Report. J Reprod Infertil. 2022 Oct-Dec;23(4):303-309. doi: 10.18502/jri.v23i4.10817. PMID: 36452189; PMCID: PMC9674458
* Özer L, **Unsal E**, Aktuna S, Baltaci V, Çelikkol P, Akyiğit F, Şen A, Ayvaz Ö, Balci S. Mandibuloacral dysplasia and LMNA A529V mutation in Turkish patients with severe skeletal changes and absent breast development. Clinical Dysmorhology, 2016
* **Unsal E**, Turan V, Aktuna S, Hurdag C, Bereketoglu G, Canillioglu Y, Baltaci A, Ozcan S, Karayalcin R, Batirbaygil H, Baltaci V. Effects of Pentoxifylline and Platelet Activating Factor on Sperm DNA Damage. *Eur J Obstet Gynecol Reprod Biol*, 2015
* Oktay K, Baltaci V, Sonmezer M, Turan V, **Unsal E**, Baltaci A, Aktuna S, Moy F. Oogonial Precursor Cell-Derived Autologous Mitochondria Injection to Improve Outcomes in Women With Multiple IVF Failures Due to Low Oocyte Quality: A Clinical Translation. *Reprod Sci,* 22: 1612-1617, 2015
* Kurtulgan H.K, Özer L, Yıldırım M, **Unsal E**, Aktuna S, Baltaci V, Akkuş N. and Sezgin İ. Recombinant chromosome with partial 14q trisomy due to maternal pericentric inversion. Molecular Cytogenetics. 8:92 DOI 10.1186/s13039-015-0195, 2015
* Karakaya C, Guzeloglu-Kayisli O, Uyar A, Kallen AN, Babayev E, Bozkurt N, **Unsal E,** Karabacak O, Seli E. Poor ovarian response in women undergoing in vitro fertilization is associated with altered microRNA expression in cumulus cells. Fertil Steril. 2015 Jun;103(6):1469-76.e1-3. doi: 10.1016/j.fertnstert.2015.02.035. Epub 2015 Apr 22. PMID: 25910568; PMCID: PMC5648585.
* Özer L, **Unsal E**, Ayvaz Ö, Şen A, Baltaci V. Prenatal Cytogenetic Findings in 13.466 Cases of High-Risk Pregnant Women in One LaboratoryObstetrics, Gynaecology and Reproductive Medicine, cilt:19, sayı:3, 139-146, 2013
* Titus S, Li Fang, Stobezki R, Akula K, **Unsal E**, Jeong K, Dickler M, Robson M, Moy F, Goswami S, Oktay K. Impairment of BRCA1-Related DNA Double-Strand Break Repair Leads to Ovarian Aging in Mice and Humans. *Sci Transl Med* 5, 172ra21, 2013
* Ayvaz Ö, Hatırnaz Ş, Hatırnaz E, **Unsal E**, Sinanoğlu Ekin B, Özer L, Kadı A.K., Baltaci V. First Successful Preimplantation Genetic Diagnosis of Epidermolysis Bullosa with Pyloric Atresia:Case Study of A Novel c.4505-4508insactc mutation. Journal of Assisted Reproduction and Genetics. cilt:29, sayı:4, 347-352, 2012
* Batıoğlu A.S., Şahin U, Gürlek B, Öztürk N & **Unsal E.** The Efficacy of Melatonin Administration on Oocyte Quality Gynecological Endocrinology, cilt:28, sayı:2, 91-93,2012
* Ayvaz OU, Ekmekçi A, Baltaci V, Onen HI, **Unsal E.** [Evaluation of İn Vitro Fertilization Parameters and Estrogen Receptor Alpha Gene Polymorphisms For Women With Unexplained İnfertility.](http://www.ncbi.nlm.nih.gov/pubmed/19866355)J Assist Reprod Genet. 26(9-10):503-10. 2009
* Baltaci V, Ayvaz OU, **Unsal E**, Aktaş Y, Baltacı A, Turhan F, Ozcan S, Sönmezer M. [The effectiveness of intracytoplasmic sperm injection combined with piezoelectric stimulation in infertile couples with total fertilization failure.](http://www.ncbi.nlm.nih.gov/pubmed/19464000) Fertil Steril. cilt:94, sayı:3, 900-904, 2010
* **Unsal E**, Aktaş Y, Uner O, BaltacI A, Ozcan S, Turhan F, Baltaci V. Successful Application of Preimplantation Genetic Diagnosis for Leigh Syndrome Fertil Steril. 90(5):2017.e11-3., 2008
* Inanç B, Elçin AE, **Unsal E**, Balos K, Parlar A, Elçin YM. Artif [Differentiation of Human Embryonic Stem Cells on Periodontal Ligament Fibroblasts İn Vitro.](http://www.ncbi.nlm.nih.gov/pubmed/18005274)Organs. 32(2):100-9., 2007
* Sher G, Keskintepe L, Keskintepe M, Ginsburg M, Maassarani G, Yakut T, Baltaci V, Kotze D, **Unsal E.** [Oocyte Karyotyping by Comparative Genomic Hybridization [Correction Of Hybrydization] Provides A Highly Reliable Method For Selecting "Competent" Embryos, Markedly İmproving İn Vitro Fertilization Outcome: A Multiphase Study.](http://www.ncbi.nlm.nih.gov/pubmed/17258713) Fertil Steril. 87(5):1033-40, 2007
* Baltaci V, Satiroğlu H, **Unsal E**, Uner O, Ergün MA, Batioğlu S, Sönmezer M, Kabukçu C, Aydinuraz B, Aktaş Y. [Preimplantation Genetic Diagnosis in Two Couples With Balanced Reciprocal Translocations.](http://www.ncbi.nlm.nih.gov/pubmed/16876931) Eur J Obstet Gynecol Reprod Biol. 134(1):126-7, 2006
* Baltaci V, Satiroglu H, Kabukçu C, **Unsal E**, Aydinuraz B, Uner O, Aktas Y, Cetinkaya E, Turhan F, Aktan A. [Relationship Between Embryo Quality and Aneuploidies.](http://www.ncbi.nlm.nih.gov/pubmed/16454940) Reprod Biomed Online. Jan;12(1):77-82, 2006

**STATEMENTS PRESENTED IN INTERNATIONAL SCIENTIFIC CONFERENCES   
AND IN THE BOOK OF PROCEEDINGS**

* Mas S. , Cabello-Pinedo S., Maroto B., Fraire A., Baltacı V., **ÜNSAL E**., Aktuna 5 , Defort N., Bonald F., Nogueira D., Pérez Gallastegui 8A., Ayerdi Irizar F., Valle Artetxe J., Giménez C., Gianaroli L, Munne S., Multi-center validation of a noninvasive metabolomics test to assess embryo implantation potential -Biomarkers of embryos developmental competence, PGDIS 2023, Submitted
* **Unsal E**, Aktuna S, Ozer L, Polat M, & Baltaci V. (2022, April). Comprehensive carrier screening strategy for challenging genomic conditions. In European Journal of Human Genetics (Vol. 30, No. SUPPL 1, pp. 454-454
* Aktuna S, Polat M, **Unsal E**, Ozer L, & Baltaci V. (2022, April). Embryo transfer decision dilemma in PGT-M: Dominant or recessive inheritance. In European Journal of Human Genetics (Vol. 30, No. SUPPL 1, pp. 108-108).
* Ozer L, **Unsal E**, Polat M, Aktuna S, & Baltaci V. (2022, April). The shift towards rare: Increased frequency of rare PGT-M cases. In European Journal of Human Genetics (Vol. 30, No. SUPPL 1, pp. 108-108)
* **Unsal E**, Ozer L, Aydin M, Aktuna S, Baltaci V. How Effective is Target Sequence Enrichment During Whole Genome Amplification on The Improvement of PGT-M Results? American Society for Reproductive Medicine , (October 17-21, 2020) , Online
* Aydin M, Baltaci V, Ozer L, **Unsal E**, Aktuna S. Is it Possible to Detect All Segmental Chromosomal Imbalances with NGS Using Custom Analysis Algorithms? American Society for Reproductive Medicine , (October 17-21, 2020) , Online
* Aktuna S, Baltaci V, **Unsal E,** Ozer L, , Aydin M, , How Effective is Universal Carrier Screening to Encompass Turkish Population Mutation Profile? American Society for Reproductive Medicine , (October 17-21, 2020) , Online
* Ozer, L, M. Aydin, Aktuna S, **Unsal** **E**. The value of prenatal array to detect submicroscopic chromosomal imbalances in cases with abnormal fetal ultrasonographic findings: a retrospective study, ESHG Conference, 2020.
* Aydin M, Aktuna S, **Unsal E,** Ozer L, Baltaci V. “NGS Based PGT-A / PGT-SR: Data from >7000 Embryos”, PGDIS, 18th International Conference on Preimplantation Genetics, Geneva, Switzerland (April 15-18, 2019)
* Ozer L, Aydin M, **Unsal E,** Aktuna S, Baltaci V. “Additional Data for Controversial Inter-chromosomal Effect Susceptibility in PGT-SR Patients”, PGDIS, 18th International Conference on Preimplantation Genetics, Geneva, Switzerland (April 15-18, 2019)
* **Unsal E,** Aktuna S, Aydin M, Ozer L, , Baltaci V. “Improved IVF Success of Combined PGT-M and PGT-A Applications”, PGDIS, 18th International Conference on Preimplantation Genetics, Geneva, Switzerland (April 15-18, 2019)
* Aktuna S, **Unsal E,** Ozer L, Aydin M, Baltaci V. “Simultaneous PGT-M Applications for Multiple Genetic Conditions”, PGDIS, 18th International Conference on Preimplantation Genetics, Geneva, Switzerland (April 15-18, 2019)
* Ozer L, Aydin M, Aktuna S, **Unsal E,** Baltaci V. “Chromosomal Microarray Analysis in Diagnosis of Patients with Congenital Abnormalities, Developmental Delay, Intellectual Disability, Autism: A One Year Retrospective Analysis”, 13th Balkan Congress of Human Genetics, Edirne, Turkey (April 17-20, 2019)
* Ozer L, **Unsal E,** Aydın M, Aktuna S, Duman D, Çelikkol P, Şen S, Baltacı A, Özcan S , Karayalçın R, Biri A, Baltacı V. Development of NGS based genetic testing for female infertility TSRM Reproductive Health and Infertility Congress, Antalya, Turkey (2018)
* Ozer L., **Unsal E**, Aktuna S., Aydın M, Duman D, Çelikkol P, Şen S, Baltacı A, Özcan S , Karayalçın R, Biri A, Baltacı V. Comprehensive Next Generation Sequencing(NGS) based panel for male infertility TSRM Reproductive Health and Infertility Congress, Antalya, Turkey (2018)
* Aydin, M, **Unsal E**, Aktuna S, Ozer, L, Çelikkol, P, Duman, T, Batırbaygil, H, Şen, S, Baltacı, A, Baltacı, V. “Our Experience Following NGS Based PGT-A on >6000 Embryos”, TSRM Reproductive Health and Infertility Congress, Antalya, Turkey (2018)
* Aktuna S, **Unsal E**, Aydın M, Özer L, Atik A, Duman T, Baltacı A, Baltacı V. “Haploid Cell Assessment Approach: Predictive Value of Spermatogenesis Biomarkers”, TSRM Reproductive Health and Infertility Congress, Antalya, Turkey, 2018
* **Unsal E**, Aktuna S, Aydın M, Çelikkol P, Duman T., Atik A., Karayalçın R., Baltacı A., Baltacı V. “The Importance of Combining 24 Chromosome Screening with Preimplantation Genetic Diagnosis of Monogenic Diseases”, TSRM Reproductive Health and Infertility Congress, Antalya, Turkey, 2018
* Aktuna S, **Unsal E**, Özer L, Abbasi M, Aydın, M., Duman T, Baltacı V. “Testing Sperm DNA Fragmentation with Flow Cytometry : A New ERA for Robust and Standardised DNA Integrity Evaluation”, TSRM Reproductive Health and Infertility Congress, Antalya, Turkey, 2018
* Aktuna S, **Unsal E**, Özer L, Abbasi M., Aydın M., Duman T., Baltacı, V. “Testing Sperm DNA Fragmentation with Flow Cytometry: A New ERA for Robust and Standardised DNA Integrity Evaluation”, TSRM Reproductive Health and Infertility Congress, Antalya, Turkey, 2018
* Baltacı V, **Unsal E**, Özer L, Aktuna, S, Aydın, M, Atik A, Abbasi M, Biri A. “Flow Cytometric Analysis of Post Meiotic Spermatids”, TSRM Reproductive Health and Infertility Congress, Antalya, Turkey, 2018
* Aktuna S, **Unsal E,** Ozer L, Kolsal G, Polat S, Baltaci A, Duman T, Hurdag C, Aydos K, Baltaci V. DMC1 is an encouraging biomarker for non-obstructive azoospermia patients. ESHRE, 2017
* Ozer L , Aktuna S, **Unsal E**, Çelikkol. P, Aydın M., Duman T., Baltacı A , Baltacı V. Aneuploidy rates of next-generation sequencing in preimplantation genetic diagnosis for balanced translocation carriers PGD IS, 2017
* Baltaci V, **Unsal E,** Ozer E, Aktuna S, Atik A, Baltacı A. Are Metabolic Disorder Carriers Subject To Poor Ovarian Response İn Pgd Cycles ? PGD IS, 2017
* **Unsal E**, Aktuna S, Ozer E, Aydın M., Duman T., Çelikkol. P, Baltacı A, Baltaci V What Next Generation Sequencing Brings to Preimplantation Genetic Testing PGD IS, 2017
* Özer L, Trujıllano D, **Unsal E**, Aktuna S, Akyiğit F, Çelikkol P, Rolfs A, Baltacı V. (2016). Novel PGAP1 Gene Mutation in Patients with Mental Retardation in a Turkish family. European Society of Human Genetics Congress
* **Unsal E** (2016). Open and Closed Blastocyst Vitrification of Biopsied Embryos.

UARM CONGRESS UKRAINE 2016 (Guest Speaker) (Control No: 2728401)

* Özer L, **Unsal E**, Aktuna S, Duman M.T, Çelikkol P, Kutlu N. K, Koçak İ, Baltacı V. (2016). Whole Exom Sequencıng Enables Preımplantatıon Genetıc Dıagnosıs For Couples With Undiagnosed Disorders. PGD IS 2016
* **Unsal E**, Aktuna S, Özer L, Koçak İ., ,Akyiğit F., Güney E., Baltacı A., Duman M.T.,Almacıoğlu H., Baltacı V. (2016). First NGS Based Comprehensive Chromosome Screening Data From Turkey. PGD IS 2016
* Aktuna S, **Unsal E**, Özer L, Duman M. T, Çelikkol P, Kutlu N. K, Baltacı A, Baltacı V. (2016). PGD for variants of unknown significance (VUS) ; How to decide to perform or not to perform ?. PGD IS 2016
* **Unsal E.** (2016). Open Versus Closed System for Vitrification: Pros and Cons. XIV. Annual Meeting of the Mediterranean Society for Reproductive Medicine (Guest Speaker) (Control No: 2727496)
* Oktay K, Sönmezer M, Baltacı V, **Unsal E**, Aktuna S., Baltacı A, Turan V. (2015). Oogonıal Precursor Cell Derıved Autologous Mıtochondrıa Injectıon Improves Outcomes In Women Wıth Multıple Ivf Faılures Due To Low Oocyte Qualıty. Society for Reproductive Investigation
* Özer L, **Unsal E,** Baltaci V, Aktuna S, Ayvaz Ö, Akyiğit F, Çelikkol P, Şen A, Balcı S. “Homozygous Ala529Val LMNA Mutation in Patients with Mandibuloacral Dysplasia in a Turkish family” ESHG, 2014
* Aktuna S, **Unsal E**, Duman T, Ozer L, Akyigit F, Celikkol P, Baltaci, A, Ozcan, S, Baltaci V. “Preimplantation Genetic Diagnosis with Carrier Mapping Test: An Encouraging New Approach For Couples Without Molecular Diagnosis” [Chromosome Research](javascript:;)  Dec 2014, Volume: 22   Issue: 4   Pages: 637-638
* Baltaci V, Aktas Y, **Unsal E**, Ayvaz Ö, Turhan F, Sinanoglu B, Sen S, Baltaci A. (2014). The Effect of Piezoelectric Stimulation in Patients with Low Fertilization Potential. Human Genetics& Embryology, 4(1), 1-5.(Özgün Makale), (Control No: 2687427)
* **Unsal E**, Ayvaz Ö, Duman T, Özer L, Akyiğit F, Baltaci A, Baltaci V. “Preimplantation Genetic Diagnosis (PGD) for Single Gene Disorders with HLA typing: A Brief Report” Fertility and Sterility 2013, Volume: 100   Issue: 3   Supplement: S   Pages: S204-S204   Meeting Abstract: P-194
* İlkan A, Aktuna A, Hürdağ C, Çanıllıoğlu Y, Duman T, Üner Ö, Özer L, Baltacı V, **Unsal E**. “Mutation Analysis of Phospholipase C Zeta (PLCζ) in Patients With Low Fertilisation Rate” ESHRE, 2014
* Hürdag C, Canillioglu Y.E, Kandil A,Yüksel M.L, **Unsal E**, Karpuz V. (2013). The Morphological Evaluation in Azoospermia Cases of Testicular Tubular Tight Junctions. Microscopy Conference 2013 (Poster) (Control No: 2633066)
* Hürdag C, Canillioglu Y.E., Kandil A.,Yüksel M.L, **Unsal E**, Karpuz V. (2013). The Role of Nitric Oxide in Testicular Sperm Extraction (TESE). FEBS (Poster) (Control No: 2633044)
* Duman T, **Unsal E**, Ayvaz Ö, Demirel C, Özer L, Baltaci A, Akyigit F, Baltaci V. (2013). Birth of Healthy Baby After Preimplantation Genetic Diagnosis of Junctional Epidermolysis Bullosa.. PGDIS, 2013 (Poster) (Control No: 872494)
* Ayvaz Ö, **Unsal E**, Baltaci A, Duman T, Özer L, Akyiğit F, Baltaci V. “ Preimplantation Genetic Diagnosis for Mucopolysaccharidose Type I: Analysis of a Novel Indel Mutation”, [Fertility And Sterility](javascript:;),  Sep 2013 Volume: 100   Issue: 3   Supplement: S   Pages: S206-S206   Meeting Abstract: P-203
* Karakaya H, **Unsal E,** Kandil A, Canıllıoğlu Y.E., Hürdağ C. The Effects of NOS Isoforms In Human Normospermia, Asthenospermia And Oligospermia Cases” Proceedings of the 4th International Congress on cell membranes and oxidative stress: Focus on calcium signalling ant TRP channels.  Int. Proceedings Division Medimond, p 5-10,2012
* Baltaci V, Satıroglu H, Aydınuraz B, **Unsal E**, Üner Ö, Çetinkaya E, Kabukçu C Aktas Y, Turhan F. (2006). A Simplified Blastomere Fixation Protocol for Pgd Applications. European Society Of Human Genetics (Poster) (Control No: 868477)
* Baltaci V, Satıroglu H, **Unsal E**, Üner Ö, Ergün MA, Batıoglu S, Sönmezer M, Kabukçu C, Aydınuraz B, Turhan F, Aktas Y, (2005). Preimplantation genetic diagnosis in two couples with balanced reciprocal translocations. PGD-IS (Poster) (Control No: 868698)
* **Baltaci E,** Gumuslu S., Alpas I., Erdem M., Karabacak O., Tiras M.B. and Guner H. (2002). Is there any effect of severe oligozoospermia on fertilization, embryo quality and pregnancy in ICSI patients?. ESHRE 2002 (Abstract) (Control No: 868992)

**ARTICLES PUBLISHED IN NATIONAL PEER REVIEWED JOURNALS**

* **Unsal E**. Flow Cytometric Spermatology –Blast, August 2021
* **Unsal E**. The Importance of 24 Chromosome Screening in Preimplantation Genetic Diagnosis of Single Gene Diseases, BLAST PGT, Special issue: Chapter 1, April 2019
* **Unsal E**. Coordination of IVF and Genetic Diagnosis Laboratory in Preimplantation Genetic Testing Applications BLAST PGT Special issue: Chapter 2, July 2019
* Oktay N, Ersoy Ç.Y, **Unsal E**, Hürdağ C. The Effect of Phospholipase C Zeta on Fertilisation in Normospermia and Asthenospermia. FNG & Journal of Medicine, 2016; 2(2):121-129
* Özdemir Y, **Unsal E**, Hürdağ C. Comparison of Ultrastructural Changes in Spermatozoa after Pentoxifyllinea Platelet Activating Factor. FNG & Journal of Medicine, 2015; 1(1):11-17

**STATEMENTS PRESENTED IN NATIONAL SCIENTIFIC CONFERENCES**

**AND IN THE BOOK OF PROCEEDINGS**

* **Unsal E**. Panel and Exome Approaches in Preconceptional Genetic Screening, 9th Congress of Society of Reproductive Medicine and Surgery, November 02-06, 2022 – Antalya
* **Unsal E**. PGT-A & PGT-SR Test Methodologies - 9th Congress of Society of Reproductive Medicine and Surgery, November 02-06, 2022 – Antalya
* **Unsal E**. Current Embryo Biopsy Techniques - 8th Congress of Society of Reproductive Medicine and Surgery, October 28-31, 2021 – Antalya
* **Unsal E.** Can PGT-M and PGT-A be performed together? 9th Reproductive Health and Infertility Congress, November 11-14, 2021 – Antalya
* **Unsal E.** Effect of Embryo Biopsy Technique on Preimplantation Genetic Test Results, (Invited Speaker) Baskent Infertility Days, June 14-15, 2019, Ankara
* **Unsal E.** PGD - Current Status and Future Challenges (Invited Speaker), Symposium on controversial issues in infertility and ART, February 23-24, 2019
* **Unsal E.** Preimplantation Genetic Diagnosis in All Aspects (Invited Speaker), March 23-24, 2019, Zeynep Kamil Hospital, Istanbul
* **Unsal E.** 3rd Koru International Pregnancy, Childbirth and Postpartum Congress. (Invited Speaker) The Effect of Wet Laboratory Studies on Bioinformatic Data in Next Generation Sequencing Applications, February 14, 2019, Bolu
* **Unsal E.** What are the factors depending on men, women or technique in the clvage period? (Invited speaker) 1st Çukurova IVF days, January 11-13 2019, Adana
* **Unsal E,** Harper J, Rubio C, Özgür K. (Panelist) Clinical Embryology and Genetics. Symposium on Current Approaches in Ovulation Induction and Infertility, October 4-7 2018, Muğla
* **Unsal E.** Improved IVF Success of Combined PGT-M and PGT-A Applications 18th International Conference on Preimplantation Genetics-PGDIS, Geneve (Switzerland), April 15-18, 2019
* **Unsal E**. (2018). Controversial issues in Preconceptional Genetic Therapy, (Invited Speaker). National Reproductive Health and Infertility Congress, November 8-11, 2018, Antalya
* **Unsal E**. HLA Compatible Sibling PGD Applications and Current Status. (Invited Speaker) I V. Turkish Medical World Congress, October 28-29, 2017, Istanbul
* **Unsal E**. Algorithms for Preimplantation Genetic Diagnosis of Single Gene Diseases. Algorithms in Medical Genetics Symposium, (Invited Speaker) June 3, 2017, Ankara
* Aktuna S, **Unsal E**, Kaya C, Özer L, Güney E, Baltaci A, Duman M. T, Almacioglu H, Baltaci V. (2016). How 24 Chromosome Screening Improve the PGS efficacy. 11th Turkish-German Gynaecology Congress, (Control No: 2728309)
* **Unsal E**. (2016). The Analysis of Blastomere and Trophectoderm – Whole Genomic Technologies: Microarrays and Next Generation Sequencing. 11th Turkish-German Gynaecology Congress, (Control No: 2728349)
* **Unsal E**, Ayvaz Ö, Duman T, Özer L, Akyigit F, Baltaci A, Baltaci V (2013). Preimplantation Genetic Diagnosis and HLA Typing in Beta Thalassaemia Cases. 4th National Transplantation Immunology and Genetics Congress, (Control No: 872610)
* **Unsal E**. (2012). Invasive Embryo Selection Methods. Fourth Reproductive Medicine Society Congress, September 26-29 , 2013 , Antalya (Control No: 866666)
* **Unsal E**. (2011) Current treatment methods in hemoglobinopathies and preimplantation genetic diagnosis and stem cell transplantation panel. May 8, 2011, Adana
* **Unsal E.** (2011) “Trans Atlantic Reproductive Technologies Network (TARTEN)” Congress, - Assessment of Sperm DNA Fragmentation Before ART. Istanbul. April 14-17, 2011

**MEMEBERSHIPS IN SCIENTIFIC AND PROFESSIONAL COMMUNITIES**

* TSRM (Turkish Society of Medical Genetics) Membership - Head of TSRM Reproductive Special Interest Group, 2021-
* KED (Clinical Embryology Association) – Board Member, 2008-2020
* PGDIS (Preimplantation Genetic Diagnosis International Society) Membership
* UTCD (Society of Reproductive Medicine and Surgery) Membership
* GTMD (Private Genetic Diagnosis Centers Association) Membership
* ESHG (European Society of Human Genetics) Membership
* ESHRE (European Society of Human Reproduction and Endocrinology) Membership
* ASRM (American Society of Reproductive Medicine) Membership

**LANGUAGE SKILLS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Language** | **Writing** | **Speaking** | **Reading** |
| English | Advanced | Advanced | Advanced |

**PROFESSIONAL CERTIFICATES & TRAININGS**

1. Thermo Fisher Scientific, Bionformatic for Ion Course (July 16-17, 2019, Ankara)
2. Thermo Fisher Scientific, ReproSeq PGS Workflow Training on GeneStudio S5 and Ion Chef (6-7 Mayıs 2019, Ankara)
3. Course of Uses of Flow Cytometry Technique in Reproductive Biotechnology (January 5, 2018, Ankara)
4. 3500 Genetic Analyzer Sanger Sequencing Training (March 27-28, 2017 ,Ankara)
5. Roche Real Time PCR Training (March 28, 2017-Ankara)
6. TS EN ISO 15189:2014 Medical Laboratories - Internal Audit Training (December 23, 2016)
7. Method Validation/Verification and Measurement Uncertainty Training for Medical Laboratories (December 25, 2016)
8. TS EN ISO 15189:2014 Medical Laboratories–Requirements for Quality and Competence Standard Training (December 30, 2016, Ankara)
9. CentoAcademy Whole Exome Sequencing Master Course, Whole Exome Sequencing techniques, bioinformatics evaluation of the obtained data, Centogene Genetic Diagnosis Laboratory, Course, 15.02.2016 - 17.02.2016 (International)
10. Qiagen Rotor Gene Real Time PCR Training (January 7, 2016- Ankara)
11. TUBITAK ARDEB National Academic R&D Support Programs introduction and Project Proposal Preparation Training, scope and features of TUBITAK projects, points to be considered while preparing a project, TUBITAK Kavaklidere, Course, 27.03.2014 -27.03.2014 (National)
12. Hybrid Course In Next Generation Sequencing, next generation sequencing technology applications, bioinformatics evaluations, Istanbul University Baltalimanı Social Facilities, Course, 17.05.2013 - 20.05.2013 (International)
13. Hands-on workshop on Preimplantation Genetic Diagnosis of Genetic and Chromosomal Disorders by Blastomere and Trophectoderm Biopsy, molecular techniques for preimplantation genetic diagnosis of single gene disorders, trophectoderm and blastomere biopsy, Memorial Şişli Hospital, Course, 12.05.2013 -16.05.2013 (International)
14. Emotional Performance Seminar in Service Quality, Practices for a quality health service, Genart IVF Center, Course, 14.08.2011 -14.08.2011 (National)
15. Transatlantic Reproductive Technologies Network Embryology and Genetics Course, 8th Preimplantation Genetic Diagnostic Applications, Swissotel, Course, 14.04.2011 -14.04.2011 (International)
16. Preimplantation Genetic Diagnosis for Single Gene Disorders, molecular test setup and laboratory applications for preimplantation genetic diagnosis in single gene disorders, Reproductive Genetics Institute, Course, 13.10.2010 -20.10.2010 (International)
17. Preimplantation Genetic Diagnosis for Single Gene Disorders, application of molecular techniques for preimplantation genetic diagnosis in single gene diseases., Reproductive Genetics Institute, Course, 13.10.2010 -20.10.2010 (International)
18. Hands-on Blastocyst Workshop, Blastocyst cell culture and manipulation, The Sheraton Fota Island Hotel, Course, 15.08.2008 -16.08.2008 (International)
19. Gamete and Somatic Cell Manipulation Techniques, Nucleus Transfer, Identification of Embryonic Stem Cells Course, Creation of embryonic stem cell lines, enucleation and nuclear transfer techniques, Istanbul University Faculty of Science and Memorial Şişli Hospital IVF and Genetics Laboratories, Course, 07.05.2004 -09.05. 2004 (National)
20. Assisted Reproduction Techniques and Methods Used in Transgenic Animal Production Practical Training Course, Obtaining gametes and embryos in mice and rats by superovulation, cloning techniques, TUBITAK Gene Engineering and Biotechnology Research Institute, Course, 05.07.2004 -09.07.2004 (National)
21. European Society of Human Reproduction and Embryology Precongress Course, preimplantation genetic diagnosis applications, Palacio Municipal de Congresos de Madrid, Course, 29.06.2003 -02.07.2003 International)
22. Assisted Reproductive Techniques Sperm Preparation Methods Theoretical and Practical Course, Applied sperm washing methods explained, Gülhane Military Medical Academy, Course, 24.04.2002 -27.04.2002 (National)

**REFERENCES**

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