Gary L. Harton, PhD

Home 17488 Aquila Ct. Ft. Myers, FL 33913

E-mail gary@grow-consulting.net Cell (703) 899-8434

Education

2010-2014	PhD, University of Kent, Canterbury, UK School of Biosciences, Degree in Science, Technology and Medical Studies/Genetics
	Thesis title: Facilitating the widespread use of preimplantation genetic diagnosis and screening through best practice and novel technology development
1983-1987	Bachelor of Science, Biology James Madison University, Harrisonburg, VA

Teaching Experience

2017-present	Honorary Senior Lecturer, University of Kent, Reproductive Medicine: Science and Ethics MSc Program
2018-present	Teacher, Eastern Virginia Medical School, Reproductive Clinical Science, PhD Program. Course-ART and Genetics
2020-present	Adjunct Clinical Associate Professor, Bryant University Physician's Assistant Program
2023-present	Adjunct Clinical Associate Professor, Assumption University Physician's Assistant Program

Graduate Student Oversight

Devin Monaghan, PhD Candidate University of Kent, Canterbury, UK Thesis title (working) Preimplantation genetic testing-comparison of platforms and technologies

Jason Au, PhD Candidate Eastern Virginia Medical School, Norfolk, VA Thesis title (working) Non-invasive genetic testing of human embryos

Professional Experience

2024-present	Founder & Principal Consultant Grow Consulting Fertility & Genetics
2021-2024	Chief Scientific Officer/GM Reproductive Health BioSkryb Genomics, Durham, NC
2018-2021	Portfolio Director, Preimplantation Genetic Testing (RHS) PerkinElmer, Waltham, MA
2016-2018	Chief Operating Officer Igenomix US, Miami, FL
2015-2016	Group Senior Vice President, Commercial Development/Clinical Excellence Progyny Inc., New York, NY
2014-2015	Associate Director, Market Development Illumina Inc., San Diego, CA (Illumina Purchased BlueGnome in 2012)
2012-2014	Americas IVF Business Development Manager BlueGnome Limited, Cambridge, UK
2010-2012	Head, Molecular Genetics Reprogenetics LLC, Livingston, NJ
2010-2012	Business Development Team Reprogenetics LLC, Livingston, NJ
1988-2010	Genetics & IVF Institute (see below) Fairfax, VA
2005-2008	Director of Administration, Infertility Division

Genetics & IVF Institute, Fairfax, VA

2004-2010	Director, Endocrinology Laboratory Genetics & IVF Institute, Fairfax, VA
2001-2010	Director, Preimplantation Genetic Diagnosis Laboratory Genetics & IVF Institute, Fairfax, VA
1997-2001	Assistant Director, Preimplantation Genetic Diagnosis Laboratory Genetics & IVF Institute, Fairfax, VA
1994-1997	Laboratory Manager, Preimplantation Genetic Diagnosis Laboratory Genetics & IVF Institute, Fairfax, VA
1988-1994	Laboratory Technologist, Preimplantation Genetic Diagnosis Laboratory and Prenatal Diagnosis Laboratory, Genetics & IVF Institute
1987-1988	Laboratory Technician, Research and Development, Monoclonal Antibodies, Electro-Nucleonics Inc., Columbia, MD

GM Reproductive Health, BioSkryb Genomics: The GM Reproductive Health is responsible for oversight of both the scientific and business aspects of specific parternships/collaborations/deals related to Reproductive Health, both in humans and other species at BioSkryb. This field includes any and all genetic and genomic testing that can be performed prior to attempting pregnancy, during assisted reproductive techniques such as IVF, and in the prenatal/perinatal period of gestation and development. The GM is a global KOL in the Women's Health field and can operate easily between the Board Room and the Laboratory Bench, and in between.

Portfolio Director, Preimplantation Genetic Testing (RHS): The Portfolio Director Preimplantation Genetic Testing is responsible for Perkin Elmer's new preimplantation genetic testing product line, PG-Seq and has full P&L responsibility for the entire RHS business including sales, finance, R&D, manufacture of reagents and marketing. The PG-Seq kit includes the patented DOPlify whole genome amplification system, library preparation reagents and the PG-Find software suite allowing for analysis of aneuploidy in early human embryos prior to transfer. The role entails building new customer relationships through remote and in-office presentations to infertility clinics and reference labs in the territory, as well as making presentations at scientific meetings, and showing at industry trade shows. The Market Development team also works with leaders in the field to develop new lines of business to grow the company and serve current clients, while also keeping them up to date with developments in the industry.

Chief Operating Officer, Igenomix US: The Chief Operating Officer US is responsible for all activities of the US operation of Igenomix, a worldwide group of Reproductive Genetics laboratories, including all laboratory operations in three labs in the US and one in Canada, as well as all business operations from top to bottom including sales, marketing, customer service etc. Oversight of approximately 50 employees with full responsibility to meet the needs of our growing

laboratory operation. Responsible for yearly budget development and sales targets, analysis of the market to understand the best time to bring on new technologies and tests, as well as oversight of all activities related to accreditation and licensure at the state and federal level. The US laboratory operation is the largest affiliate in the Igenomix brand of laboratories and continues to grow year over year. In 2017, the US operation was 19 % over budget and 37 % over sales compared to 2016.

Group Senior Vice President, Commercial Development, Progyny Inc.: The Group Senior Vice President, Commercial Development is responsible for all commercial activities at Progyny including sales of The Eeva test, the first in class, FDA cleared embryo assessment tool, advertising and listings on the Progyny suite of websites for patient acquisition, and development of a robust, nationwide network of IVF and specialty testing providers to allow for a wide range of sales activities including direct to consumer bundled IVF and egg banking sales as well as sales to large, self insured employers looking to develop better fertility care for their employees. In addition, responsible for assessment, licensing/purchasing, development and validation of potential new technologies to add to the company's arsenal of technology in the Women's Health Space.

Associate Director, Market Development, Illumina Inc.: The Associate Director, Market Development is responsible for Illumina's suite of products in the reproductive field including 24sure, an array-based aneuploidy screening technology and VeriSeq PGS, a next generation sequencing (NGS)-based platform, both of which are being used clinically by hundreds of specialty labs around the world to improve IVF success rates. This includes building new client relationships through remote and in-office presentations to infertility clinics and reference labs in the territory, as well as making presentations at scientific meetings, and showing at industry trade shows. The Market Development team also works with leaders in the field to develop new lines of business to grow the company and serve current clients, while also keeping them up to date with developments in the industry. Lastly, the Market Development team works to brand Illumina testing platforms as the leader in the industry for aneuploidy screening and preimplantation genetic diagnosis.

The Associate Director, Market Development also manages a team of IVF experts around the world who are also tasked as above. This team includes one employee in the US that oversees all educational programs, one employee that covers Europe, Africa and the Middle East, and one employee that covers the Asia Pacific area including India.

Americas IVF Business Development Manager, BlueGnome Limited: The IVF Business Development Manager for the Americas is responsible for BlueGnome's 24sure product line; an array-based aneuploidy screening technology which is being used in a number of studies to improve IVF success rates across North and South America. This includes building new client relationships through remote and in-office presentations to infertility clinics and reference labs in the territory, as well as making presentations at scientific meetings, and showing at industry trade shows. The business development manager also works with leaders in the field to develop new lines of business to grow the company and serve current clients, while also keeping them up to date with developments in the industry. Lastly, the business development manager works to brand BlueGnome and the 24sure testing platform as the leader in the industry for aneuploidy screening and preimplantation genetic diagnosis.

Head, Molecular Genetics, Reprogenetics: The laboratory is a clinical lab dedicated to the diagnosis and prevention of genetic disease in preimplantation embryos. Single blastomeres from day three human embryos are analyzed using polymerase chain reaction (PCR), array comparative genomic hybridization (aCGH) and fluorescence *in situ* hybridization (FISH). The laboratory staff also develops new assays, updates and refines current protocols, and assures the quality of all reagents and workspaces for single cell work. The head of molecular genetics is responsible for all aspects of molecular genetics at this very busy preimplantation genetic diagnosis (PGD) laboratory offering single cell analysis to infertility practices around the United States. The laboratories overseen include the single gene defect laboratory that diagnoses genetic disease in day-3 embryos using patient specific polymerase chain reaction (PCR) tests and the comprehensive chromosome screening lab that uses array CGH to analyze all 24 chromosomes from day-3 human embryos to screen for aneuploidy during *in vitro* fertilization cycles. The laboratories are currently processing over 900 samples per year.

Business Development Team, Reprogenetics: The business development team is responsible for building new client relationships through remote and in-office presentations to infertility clinics around the United States, as well as making presentations at scientific meetings, and showing at industry trade shows. This team also works to develop new lines of business to grow the company and serve current clients, keeping them up to date with developments in the industry as well as new offerings in the clinical laboratories of Reprogenetics.

Director of Administration, Infertility Division: The Infertility Division is a clinical medical practice specializing in assisted reproductive technology (ART) offering intrauterine insemination (IUI), *in vitro* fertilization (IVF), and other hi-tech ART cycles. The clinic was performing between 500 and 800 cycles each year as well as hundreds more IUI and frozen embryo transfer cycles. The Director of Administration is responsible for all aspects of the day-to-day running of the clinic including oversight of the Medical and Nursing staff as well as the Embryology/Andrology laboratory staff and all aspects of business development and referring physician outreach through office visits and dinner lectures for physicians and other staff. In addition, the Director oversees the budget and financial aspects of the practice, maintenance of the facilities, direction and future programs for the practice, and oversight of federal, state and local laws and regulations as they impact the practice.

Preimplantation Genetic Diagnosis Laboratory: The director of the PGD laboratory was responsible for all aspects of clinical PGD using both PCR and FISH-based testing. Protocols were designed for the detection of: cystic fibrosis (Δ F508 mutation), spinal muscular atrophy (SMA), Huntington's disease, Marfan syndrome, sickle cell disease, chromosomal translocations, aneuploidy screening, and the prevention of X-linked diseases such as Duchenne muscular dystrophy and hemophilia using sex determination. More than 3000 PGD cycles were completed in the lab during these dates.

In addition to the clinical and management duties in the lab, the Laboratory Director was responsible for business development and sales to help the laboratory grow through new connections as well as increasing current client referral patterns. The Director was also responsible for all hiring decisions, training of new staff and continued staff development.

Endocrinology Laboratory: The Endocrinology laboratory performs endocrine testing for patients in the infertility practice utilizing state-of-the-art automated testing platforms which offers extremely short turn-around times and unsurpassed accuracy. The Laboratory Director is responsible for oversight of the day-to-day operations of the laboratory testing, staffing, budgeting and overall operation of the laboratory.

Prenatal Diagnosis Laboratory: The laboratory is a clinical lab designed to analyze tissue, either chorionic villus samples (CVS) or amniotic fluid, from human fetuses for chromosomal abnormalities. Was responsible for all aspects of prenatal diagnosis including initial tissue set-up in culture, maintenance of cell cultures, harvesting of metaphase chromosome spreads, G-banding and microscopic analysis of stained chromosomes. In addition, technicians in the laboratory assisted during egg retrievals and sperm preparation in the infertility section.

Electro-Nucleonics Inc., Monoclonal Antibodies: Worked as part of a research and development team making monoclonal antibodies to unique surface antigens of HIV for use in antigen capture test kits. Responsible for all aspects of monoclonal antibody production including immunization of mice, surgical dissection of mouse spleen, chemical fusion of spleen cells and mouse cell culture line, as well as maintenance and characterization of hybridoma cell lines in culture.

Memberships:

2023-2024	Chair, Preimplantation Genetic Testing Special Interest Group (PGT SIG), ASRM
2016-2022	Member, Special Advisory Group (SAG) UKNEQAS/CEQA External Quality Assessment Scheme for PGD and PGS
2010-2012	Chair, ESHRE PGD Consortium
2008-2010	Deputy Chair, ESHRE PGD Consortium
2007-2010	Chair, ESHRE PGD Consortium "PGD Guideline" Task Force
2007-2012	Member of PGD Laboratory Accreditation and Misdiagnosis Task Forces, ESHRE PGD Consortium
2003-2008	Steering committee member, ESHRE PGD Consortium
2002-present	Preimplantation Genetic Diagnosis International Society (PGD-IS)
2001-present	European Society of Human Reproduction and Embryology (ESHRE)

2000-present American Society for Reproductive Medicine (ASRM)

Certification:

2003-present Technical Supervisor (Clinical Molecular Biology) American Board of Bioanalysis (ABB)

Associate Editor

Human Reproduction, June 2008-2012

Ad-Hoc Reviewer of Manuscripts:

Prenatal Diagnosis Human Reproduction Molecular Human Reproduction Fertility and Sterility RBMOnline Clinical Endocrinology

Advisory Boards:

The World Egg Bank, October 2014-present

Cryos International, March 2015-present

Abstracts:

Gilboa D, Meseguer M, Maor R, Seidman DS, Harton G. Can Computer Vision Identify Features Not Visible to the Human Eye That Can Assist in Non-Invasively Indetifying Aneuploid Embryos. ASRM 2023, New Orleans, LA.

Morozova TV, Blackinton JG, Salas-González I, Amin VR, Weigman VJ, Zawistowski JS, Harton GL, West JAA. The ResolveOME platform: integrated whole genome and whole transcriptome profiling from a single cell to unlock drug resistance mechanisms. Advances in Genomic Biology and Technology (AGBT) Annual Meeting, Orlando, FL. 2022.

Velivela SD, Zawistowski JS, Salas-González I, Amin VR, Weigman VJ, Chen S, Harton GL, West JAA. Combined ResolveDNATM whole genome amplification with Twist Human Core Exome panel to generate high-quality human whole-exome data from single cells. Advances in Genomic Biology and Technology (AGBT) Annual Meeting, Orlando, FL. 2022.

Arvapalli DM, Salas-González I, Zawistowski JS, Blackinton JG, Hurt M, Harton GL, West JAA. Exploring microbial biodiversity through whole genome analysis using ResolveDNATM

Microbiome. Advances in Genomic Biology and Technology (AGBT) Annual Meeting, Orlando, FL. 2022.

Kennedy KA, Zawistowski JS, Amin VR, Arvapalli DM, Salas-González I, Jäger N, Glimm H, Harton GL, Fröhling S, West JAA, Pfister S. Single-cell clarity and heterogeneity in copy number profiles in primary synovial and Ewing sarcoma with ResolveDNA[™] genomic amplification. Advances in Genomic Biology and Technology (AGBT) Annual Meeting, Orlando, FL. 2022. Snider A, Kayali R, Cinnioglu C, Darvin T, Harton GL. Prediction of a Reciprocal Translocation by Preimplantation Genetic Screening (PGS). Pacific Coast Reproductive Society (PCRS) Annual Meeting, Rancho Las Palmas, CA, 2017.

Stankewicz T, Vera M, Rubio C, Cinnioglu C, Harton GL. Embryonic Mosaicism: Defining Prevalence in Terms of Clinical Relevance. Pacific Coast Reproductive Society (PCRS) Annual Meeting, Rancho Las Palmas, CA, 2017.

Sanchez J, Sweet C, Colls P, Berger, B Kenigsberg, D, Harton G. 24 Chromosome Analysis of Products of Conception (POC) Specimens by Array CGH (aCGH) Allows for More Results than Conventional Karyotyping and Allows for Simultaneous Maternal Cell Contamination Analysis. Fertility and Sterility, Vol. 96, Issue 3, S25. American Society of Reproductive Medicine (ASRM) Annual Meeting, Orlando, FL, 2011.

Harton G, Surrey M, Grifo J, Kaplan B, Ahlering P, Cohen J. Implantation of Euploid Blastocysts, Assessed by array comparative genomic hybridization (acgh), in Unstimulated Cycles is Not Correlated with Maternal age. American Society of Reproductive Medicine (ASRM) Annual Meeting, Orlando, FL, 2011.

Harton G, Konstantinidis M, Jaroudi S, Sanchez J, Tormasi, S, Prates R, Goodall N, Wells D. Outcomes of over 400 cycles of 'transport' PGD for single gene disorders. American Society of Human Genetics Annual Meeting, Montreal, Canada, 2011.

Munné S, Colls P, Sanchez J, Prates R, Tormasi S, Goodall N, Harton G. Aneuploidy Patterns in 3143 Day-3 Embryos Analyzed by Array Comparative Genomic Hybridization (aCGH). Pacific Coast Reproductive Society Annual Meeting, Rancho Las Palmas, CA, 2011.

Harton G, Surrey M, Grifo, J, Kaplan B, Ahlering P, Munne S. Implantation and Miscarriage Rates Following aCGH Analysis at the Cleavage and Blastocyst Stages. Pacific Coast Reproductive Society Annual Meeting, Rancho Las Palmas, CA, 2011.

Peters BA, Drmanac R, Colls P, Harton G, Berkeley A, Munné S. First Attempt at Complete Sequencing of Blastocyst Biopsies for Use in PGD. Pacific Coast Reproductive Society Annual Meeting, Rancho Las Palmas, CA, 2011.

Harton, G, Handyside, A, Gabriel, A, Griffin D, Prates, R, Tormasi, S, Wells, D, and Munné, S. Validation and Clinical Application of Karyomapping for PGD Combined with 24 Chromosome Aneuploidy Screening. American Society of Human Genetics Annual Meeting, Washington, DC, 2010.

J. Fischer, S. Munne, G. L. Harton. Preconception screening and preimplantation genetic diagnosis (PGD): for what are you really getting tested? American Society of Reproductive Medicine Annual Meeting, Denver, CO, 2010.

G. L. Harton, S. Al-Farawaty, N.-N. Goodall, S. Tormasi, D. Wells, E. Fragouli. The types of chromosome abnormality in blastocysts generated by infertile patients. American Society of Reproductive Medicine Annual Meeting, Denver, CO, 2010.

A.H. Handyside, N.H. Zech, B.Mariani and G. L. Harton. Genome Wide Karyomapping for preimplantation genetic diagnosis (PGD) detects inherited chromosomal aneuploidies. American Society of Reproductive Medicine Annual Meeting, Atlanta, GA, 2009.

G. L. Harton G, B. Mariani, A. Thornhill, N. Affara, D.K. Griffin, and A. H. Handyside. Genomewide Karyomapping for Preimplantation Genetic Diagnosis of Cystic Fibrosis Combines Accurate Linkage Based Testing with 24 Chromosome Aneuploidy Screening. European Society for Human Reproduction and Embryology Annual Meeting, Amsterdam, The Netherlands, 2009. (Prize paper candidate).

G. Harton, J. Fischer, H. Stern and S. Munne. Conception After Transfer of Blastocysts Diagnosed on Day-3 as Monosomic Following Preimplantation Genetic Screening (PGS). American Society of Reproductive Medicine Annual Meeting, San Francisco, CA, 2008.

A. Handyside, A. Thornhill, G. Harton, B. Mariani, B, M.A. Shaw, N. Affara, and D. Griffin. Karyomapping: a novel molecular karyotyping method based on mapping crossovers between parental haplotypes for genome wide analysis of inheritance. American Society of Reproductive Medicine Annual Meeting, San Francisco, CA, 2008.

G. Harton, B. Mariani, M. Reeves, K. Tran, B. Meltzer and H. Stern. Full Chromosomal Complement Analysis for Aneuploidy on Human Blastomeres Using a Novel SNP Array System-A Pilot Study. American College of Medical Genetics Annual Meeting, Phoenix, AZ, 2008.

G. Harton, M. Reeves, K. Redford, M. Sands, S. Zornetzer, and H. Stern. Clinical Application of Preimplantation Genetic Diagnosis (PGD) for Carriers of Chromosome Rearrangements-What Should You Expect? 56th Annual Meeting of the Pacific Coast Reproductive Society, Palm Springs, CA, 2008

A. D. Dorfmann, M. A. Iwaszko, M. E. Geltinger, M. E. Sisson, M. Reeves and H. Gary. The Effect of Biopsy on Human Embryo Progression From Day 3 to Day 5. American Society for Reproductive Medicine, Washington, DC, 2007.

G. Harton, M. Reeves, A. Dorfmann, E. Duran, K. Redford, and H. Stern. Aneuploidy Rate According to Cell Stage at Embryo Biopsy. American Society for Reproductive Medicine, Washington, DC, 2007.

B. D. Mariani, B. W. Meltzer, M. J. Reeves, G. L. Harton, and H. J. Stern. Preimplantation Genetic

Diagnosis of Sickle Cell/C β -Globin Mutation Using a Single Base Extension Genotyping Assay. American Society for Reproductive Medicine, Washington, DC, 2007.

G. Harton. Preimplantation Genetic Diagnosis (PGD) in Clinical IVF. Smart ART VII, Las Vegas, NV, USA, 2006.

R. K. Srivastava, G. Harton, A. Seabaugh, V. Pabon & J. E. Pabon. Blastocyst formation is not highly predictive of a normal chromosomal status of preimplantation embryo. American Society for Reproductive Medicine, Montreal, Canada, 2005.

J. E. Pabon. G. Harton, A. Seabaugh, R. Maitta, V. Pabon & R. K. Srivastava. Successful implantation and ongoing pregnancy of a single monosomy 16 preimplantation embryo: case report. American Society for Reproductive Medicine, Montreal, Canada, 2005.

R. Matken, D. Karabinus, G.L. Harton, H.J. Stern, S. Wiley, and K.L. Blauer (2002) MicroSort[®] Separation of X- and Y-chromosome bearing sperm: ongoing clinical trial results. American College of Obstetricians and Gynecologists (ACOG), 2002.

Black S, Stern HJ, Harton GL, Deresh D, Opanga C, and Blauer KL. MicroSort® Separation of X-chromosome bearing sperm for prevention of genetic disease: ongoing clinical trial results. European Society of Human Reproduction and Embryology (ESHRE), Vienna, Austria, 2002.

Bick, David P., Harton, Gary L., Stern, Harvey J., et al. Flow-cytometric separation in preimplantation genetic diagnosis (PGD) of X-linked disease. International Congress on Human Genetics, Vienna, Austria, 2001.

Stern, H.J., Harton, G.L., Blauer, K.L., et al. Use of MicroSort flow-cytometric sperm separation in preimplantation genetic diagnosis. European Society of Human Reproduction and Embryology, Lausanne, Switzerland, 2001.

Fugger, E.F., Keyvanfar, K., Matken, R., Harton, G.L., et al. MicroSort separation of X- and Y-Chromosome-bearing sperm: Ongoing clinical trial results after intrauterine insemination (IUI), in vitro fertilization (IVF), and intracytoplasmic sperm injection (ICSI). American Society for Reproductive Medicine, Orlando, FL, USA, 2001.

Harton, G.L., Stern, H.J., Sisson, M.E., et al. Non-disclosing preimplantation genetic diagnosis: A reproductive alternative for families at risk for Huntington's disease. American Society of Human Genetics, Philadelphia, PA, USA, 2000.

Levinson, G., Sisson, M.E., Harton, G.L., et al. Preimplantation genetic testing for X-linked disorders and cystic fibrosis. 7th International Conference on Early Prenatal Diagnosis, Jerusalem, Israel, 1995.

Levinson, G., Fields, R.A., Maddalena, A, Fugger, E.F., Harton, G.L., et al. Reliable genetic screening of human preimplantation embryos. Prenatal Diagnosis Symposium: From

Gametes to Embryos, Milan, Italy, 1992.

Levinson, G., Maddalena, A., Howard-Peebles, P.N., Black, S.H., Fugger, E.F., Palmer, F.T., Harton, G.L., et al. Preimplantation genetic screening: an option for families at risk for transmission of the fragile X chromosome. International Fragile X Conference, Aspen, CO, USA, 1992.

Levinson, G., Fields, R.A., Maddalena, A., Fugger, E.F., Harton, G.L., et al. Rapid prenatal or preimplantation diagnosis of cystic fibrosis using small samples or single cells. 5th Annual North American Cystic Fibrosis Conference, Dallas, TX, USA, 1991.

Publications:

Harton G. Understanding the risks associated with the transfer of embryos diagnosed as mosaic following PGT-A: one perspective, there are others-a commentary on Viotti et al. Fertil Steril. 2023 Sep 22:S0015-0282(23)01877-0.

ZC Deans, A Biricik, M De Rycke, GL Harton, M Hornak, F Khawaja, C Moutou, J Traeger-Synodinos, P Renwick. Twelve years of assessing the quality of preimplantation genetic testing for monogenic disorders. Prenat Diagn. 2022 Nov 12.

D. Leigh, D.S. Cram, S. Rechitsky, A. Handyside, D. Wells, S. Munne, S. Kahraman, J. Grifo, M. Katz-Jaffe, C. Rubio, M. Viotti, E. Forman, K. Xu, T. Gordon, S. Madjunkova, J. Qiao, Z.-J. Chen, G. Harton, L. Gianaroli, C. Simon, R. Scott, J.L. Simpson, A. Kuliev. PGDIS position statement on the transfer of mosaic embryos 2021, Reproductive BioMedicine Online, 2022.

Mai AD, Harton GL, Quang VN, Van HN, Thi NH, Thuy NP, Thi THL, Minh DN, Quoc QT. Development and clinical application of a preimplantation genetic testing for monogenic disease (PGT-M) for beta thalassemia in Vietnam. J Assist Reprod Genet. 2020 Nov. 20.

Cram DS, Leigh D, Handyside A, Rechitsky L, Xu K, Harton G, Grifo J, Rubio C, Fragouli E, Kahraman S, Forman E, Katz-Jaffe M, Tempest H, Thornhill A, Strom C, Escudero T, Qiao J, Munne S, Simpson JL, Kuliev A. PGD-IS Position Statement on the Transfer of Mosaic Embryos 2019. Reprod Biomed Online. 2019 Aug;39 Suppl 1:e1-e4.

Harton GL, Cinnioglu C, Fiorentino F. Current experience concerning mosaic embryos diagnosed during preimplantation genetic screening. Fertil. Steril. 2017 May;107(5):1113-1119.

Girardet A, Viart V, Plaza S, Daina G, De Rycke M, Des Georges M, Fiorentino F, Harton G, Ishmukhametova A, Navarro J, Raynal C, Renwick P, Saguet F, Schwarz M, SenGupta S, Tzetis M, Roux AF, Claustres M. The improvement of the best practice guidelines for preimplantation genetic diagnosis of cystic fibrosis: toward an international consensus. Eur J Hum Genet. 2016 Apr;24(4):469-78.

Thornhill AR, Handyside AH, Ottolini C, Natesan SA, Taylor J, Sage K, Harton G, Cliffe K, Affara N, Konstantinidis M, Wells D, Griffin DK. Karyomapping-a comprehensive means

of simultaneous monogenic and cytogenetic PGD: comparison with standard approaches in real time for Marfan syndrome. J Assist Reprod Genet. 2015 Jan 6.

Harper J, Geraedts J, Borry P, Cornel MC, Dondorp WJ, Gianaroli L, Harton G, Milachich T, Kääriäinen H, Liebaers I, Morris M, Sequeiros J, Sermon K, Shenfield F, Skirton H, Soini S, Spits C, Veiga A, Vermeesch JR, Viville S, de Wert G, Macek M Jr. Current issues in medically assisted reproduction and genetics in Europe: research, clinical practice, ethics, legal issues and policy. Hum Reprod. 2014 Aug;29(8):1603-9.

Dreesen J, Destouni A, Kourlaba G, Degn B, Mette WC, Carvalho F, Moutou C, Sengupta S, Dhanjal S, Renwick P, Davies S, Kanavakis E, Harton G, Traeger-Synodinos J. Evaluation of PCR-based preimplantation genetic diagnosis applied to monogenic diseases: a collaborative ESHRE PGD consortium study. Eur J Hum Genet. 2014 Aug;22(8):1012-8.

Harton GL, Munné S, Surrey M, Grifo J, Kaplan B, McCulloh DH, Griffin DK, Wells D; PGD Practitioners Group. Diminished effect of maternal age on implantation after preimplantation genetic diagnosis with array comparative genomic hybridization. Fertil Steril. 2013 Dec;100(6):1695-703.

Deans Z, Fiorentino F, Biricik A, Traeger-Synodinos J, Moutou C, De Rycke M, Renwick P, Sengupta S, Goossens V, Harton G. The experience of 3 years of external quality assessment of preimplantation genetic diagnosis for cystic fibrosis. Eur J Hum Genet. 2013 Aug;21(8):800-6.

Goossens V, Traeger-Synodinos J, Coonen E, De Rycke M, Moutou C, Pehlivan T, Derks-Smeets IA, Harton G. ESHRE PGD Consortium data collection XI: cycles from January to December 2008 with pregnancy follow-up to October 2009. Hum Reprod. 2012 Jul;27(7):1887-911.

Harper JC, Wilton L, Traeger-Synodinos J, Goossens V, Moutou C, SenGupta SB, Pehlivan Budak T, Renwick P, De Rycke M, Geraedts JP, Harton G. The ESHRE PGD Consortium: 10 years of data collection._Hum Reprod Update. 2012 May-Jun;18(3):234-47.

Harton GL, Tempest HG. Chromosomal disorders and male infertility. Asian J Androl. 2012 Jan;14(1):32-9. doi: 10.1038/aja.2011.66. Epub 2011 Nov 28. Review.

Bisignano A, Wells D, Harton G, and Munne S. PGD and aneuploidy screening for 24 chromosomes: advantages and disadvantages of competing platforms. Reproductive BioMedicine Online. 2011 doi:10.1016/j.rbmo.2011.05.017.

Harton GL, Coonen E, DeRycek M, Fiorentino F, Moutou C, Sengupta S, Traeger-Synodinos J, and Harper JC. ESHRE PGD consortium best practice guidelines for amplification-based PGD. Hum Reprod. 2011 Jan;26(1):33-40..

Harton GL, Harper JC, Coonen E, Pehlivan T, Vesela K, and Wilton L. ESHRE PGD consortium best practice guidelines for fluorescence in situ hybridization-based PGD. Hum Reprod. 2011 Jan;26(1):33-40.

Harton G, Braude P, Lashwood A, Schmutzler A, Traeger-Synodinos J, Wilton L and Harper JC. ESHRE PGD consortium best practice guidelines for organization of a PGD centre for PGD/preimplantation genetic screening. Hum Reprod. 2011 Jan;26(1):33-40.

Harton GL, Magli MC, Lundin K, Montag, M, Lemmen J, and Harper JC. ESHRE PGD Consortium/Embryology Special Interest Group-best practice guidelines for polar body and embryo biopsy for preimplantation genetic diagnosis/screening (PGD/PGS). Hum Reprod. 2011 Jan;26(1):33-40.

Harper JC, Coonen E, DeRycke M, Harton G, Moutou C, Pehlivan T, Traeger-Synodinos J, Van Rij MC and Goossens V. EHSRE PGD Consortium data collection X: cycles from January to December 2007 with pregnancy follow-up to October 2008. Human Reproduction. 2010 Nov;25(11):2685-707.

Fiorentino F, Kokkali G, Biricik A, Stavrou D, Ismailoglu B, De Palma R, Arizzi L, Harton G, Sessa M, Pantos K. Polymerase chain reaction-based detection of chromosomal imbalances on embryos: the evolution of preimplantation genetic diagnosis for chromosomal translocations. Fertil Steril. 2010 Nov;94(6):2001-11, 2011.e1-6. Epub 2010 Feb 20.

Harper, JC, Coonen, E, De Rycke, M, Fiorentino, F, Geraedts, J, Goossens, V, Harton, G, Moutou, C, Pehlivan, T, Renwick, P, SenGupta, S, Traeger-Synodinos, J, and Vesela, K (2009) What next for PGS? An update. Hum Reprod. 2010 Apr;25(4):821-3.

Harper, JC and Harton, G (2009) The use of arrays in PGD/PGS. Fertil Steril. 2010 Sep;94(4): 1173-7.

Goossens V, Harton G, Moutou C, Traeger-Synodinos J, Van Rij M, Harper JC. ESHRE PGD Consortium data collection IX: cycles from January to December 2006 with pregnancy follow-up to October 2007. *Human Reproduction* Aug;24(8):1786-810, 2009

Goossens V, Harton G, Moutou C, Scriven PN, Traeger-Syndinos J, Sermon K, Harper JC. ESHRE PGD consortium data collection VIII: cycles from January to December 2005 with pregnancy follow-up to October 2006. *Human Reproduction* Dec;23(12):2629-45, 2008

Harper JC, de Die-Smulders C, Goossens V, Harton G, Moutou C, Repping S, Scriven PN, SenGupta S, Traeger-Synodinos J, Van Rij MC, Viville S, Wilton L, Sermon KD. ESHRE PGD consortium data collection VII: cycles from January to December 2004 with pregnancy follow-up to October 2005. *Human Reproduction* Apr;23(4):741-55, 2008

Harper J, Sermon K, Geraedts J, Vesela K, Harton G, Thornhill A, Pehlivan T, Fiorentino F, SenGupta S, de Die-Smulders C, Magli C, Moutou C, Wilton L. What next for preimplantation genetic screening? *Human Reproduction* Mar;23(3):478-80, 2008

Sermon KD, Michiels A, Harton G, Moutou C, Repping S, Scriven PN, SenGupta S, Traeger-Synodinos J, Vesela K, Viville S Wilton L and Harper J. ESHRE PGD Consortium data collection VI: cycles from January to December 2003 with pregnancy follow-up to October *Human Reproduction* Feb;22(2):323-36, 2007.

Repping S, Geraedts J, Scriven P, Harton G, Vesela K, Kearns W, Viville S and Sermon K. Central data collection on PGD and screening. *Reproductive Medicine Online* Mar;12(3):389, 2006

Harper JC, Boelaert K, Geraedts J, Harton G, Kearns WG, Moutou C, Muntjewerff N, Repping S, SenGupta S, Scriven PN, Traeger-Syndinos J, Vesela K, Wilton L, and Sermon KD. ESHRE PGD Consortium data collection V: cycles from January to December 2002 with pregnancy follow-up to October 2003. *Human Reproduction* Jan;21(1):3-21, 2006.

Thornhill AR, deDie-Smulders CE, Geraedts JP, Harper JC, Harton GL, et al. ESHRE PGD Consortium 'Best practice guidelines for clinical preimplantation genetic diagnosis (PGD) and preimplantation genetic screening (PGS)'. *Human Reproduction* Jan;20(1):35-48, 2005.

Harvey J. Stern, Gary L. Harton, Michael E. Sisson, et al. Non-disclosing preimplantation genetic diagnosis for Huntington disease. *Prenatal Diagnosis* 22:1-6, 2002

Toudjarska, Iva, Kilpatrick, Michael W., Lambessis, Peter, Carra, Scott, Harton, Gary L., et al. Novel approach to the molecular diagnosis of Marfan syndrome: Application to sporadic cases and in prenatal diagnosis. *American Journal of Medical Genetics* 99:294-302, 2001.

Fallon, L., Harton, G.L., Sisson, M.E., et al. Preimplantation genetic diagnosis for spinal muscular atrophy Type I. *Neurology* 53:1087-1090, 1999.

Harton, G.L., Tsipouras, P., Sisson, M.E., et al. Preimplantation genetic testing for Marfan syndrome. *Molecular Human Reproduction* 2(9): 713-715, 1996.

Kilpatrick, Michael W., Harton, Gary L., Phylactou, Leonidas A., et al. Preimplantation genetic diagnosis in Marfan syndrome. *Fetal Diagnosis and Therapy* 11:402-406, 1996.

Levinson, Gene, Keyvanfar, Keyvan, Wu, Joy, Fugger, Edward F., Fields, Rita A., Harton, Gary L., et al. DNA-based X-enriched sperm separation as an adjunct to preimplantation genetic testing for the prevention of X-linked disease. *Molecular Human Reproduction* 1, *Human Reproduction* 10 (4):979-982, 1995.

Data presented at St. Thomas' Hospital, Assisted Conception Unit, London, England, by invitation, May, 1999.

Reading, Julian P., Huffman, John L., Wu, Joy, Palmer, Frances T., Harton, Gary L., et al. Nucleated erythrocytes in maternal blood: Quantity and quality of fetal cells in enriched populations. *Molecular Human Reproduction* 1, *Molecular Reproduction* 10 (9):2510-2515, 1995.

Levinson, Gene, Maddalena, Anne, Palmer, Frances T., Harton, Gary L., et al. Improved sizing of fragile X CCG repeats by nested polymerase chain reaction. *American Journal of Medical Genetics* 51:527-534, 1994.

Levinson, G., Fields, R.A., Harton, G.L., et al. Reliable gender screening for human preimplantation embryos, using multiple DNA target-sequences. *Human Reproduction* 7 (9):1304-1313, 1992.