

Georgios Liperis

Consultant Embryologist

Honorary Clinical Senior Lecturer

University of Sydney

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Summary

I am an ESHRE certified Senior Clinical Embryologist with a background in medically assisted reproduction, pre-implantation genetic testing, teaching and research in Human reproduction. I am an Honorary Clinical Senior Lecturer at the University of Sydney and have extensive experience having served as Deputy Scientific Director of Westmead Fertility Centre, the largest independent fertility provider in Australia, managing a team of 8 Embryologists and involvement in over >20000 treatment cycles over the years. My research interests consist of the development of improved methods of assisted conception. My mission is to provide an excellent service through a holistic approach involving streamlining laboratory conditions and processes tailored to patient's individual needs with the goal of improving outcomes.

Education

2014	Doctor of Philosophy Faculty of Medicine and Health, University of Leeds
2009	Degree of Master of Medical Science in Assisted Reproductive Techniques Faculty of Medicine and Health, University of Nottingham
2008	Degree of Master of Science in Reproductive Sciences by Research Centre for Reproductive Health, University of Edinburgh
2007	Bachelor of Science in Biology with direction towards Biomolecular Sciences and Biotechnology School of Biological Sciences, University of Crete

University Affiliations

2020 - Present
Honorary Clinical Senior Lecturer
University of Sydney, Faculty of Medicine and Health (ID: 1168462)

Professional body certifications

2021	Certified Senior Clinical Embryologist by ESHRE (European society of Human Reproduction and Embryology)
2017	Certified Clinical Embryologist by ESHRE (European society of Human Reproduction and Embryology), Geneva, Switzerland

Employment history

2017 - Present	Consultant Embryologist providing services to fertility providers for improvement of clinical outcomes, accreditation solutions and establishment of genetic testing services.
2022 - Present	Assessor for training centres in Clinical Embryology ESHRE (European society of Human Reproduction and Embryology)
2019 - 2022	Deputy Scientific Director Westmead Fertility Centre, University of Sydney
2017 - 2020	Coordinator of WFC operations and Laboratory manager for Pre-implantation genetic testing through VIAFET genomics centre, Sydney
2015 – 2019	Senior Clinical & Research Embryologist Westmead Fertility Centre, University of Sydney
2013 – 2015	Clinical & Research Embryologist Westmead Fertility Centre, University of Sydney

Continuous Professional Development (CPD credits)

2016 - 2022	ESHRE Continuing Professional Development Certificate for Senior/Clinical Embryology demonstrating sufficient educational / scientific / professional activity in the years 2016-2022
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Publications (ORCID: 0000-0001-9588-3392)

- 2022 #ESHREjc report: are sperm selection techniques a panacea? Indications for the use of physiological intracytoplasmic sperm injection (PICSi) in medically assisted reproduction. **Liperis G**, Sharma K ... Mincheva M. *Hum Reprod*, PMID: 35962973
- #ESHREjc report: renewing the old: novel stem cell research for unsolved ART problems. Sharma K, ... **Liperis G** ... Fraire-Zamora J. *Hum Reprod*, PMID: 35881064
- COVID-19 vaccination does not impair fertilisation outcomes in IVF or ICSI cycles. A retrospective cohort study of patients' cycle outcomes before and after vaccination. **Liperis G**, Ibrahim H, Crittenden J, Atkinson M, Sjoblom C. *Hum Reprod*, Vol 37, Suppl 1, doi: 10.1093/humrep/deac107.159
- #ESHREjc report: #ESHREjc report: diagnosing endometriosis loosens the Gordian knot of infertility treatment. Makieva S, Sharma K, ... **Liperis G** ... Massarotti C. *Hum Reprod*, PMID: 356707432022
- #ESHREjc report: non-invasive aneuploidy testing as an example of interdisciplinary innovation in ART. Ammar FA, Massarotti C, ... **Liperis G** ... Uraji J. *Hum Reprod*, PMID: 35460411
- #ESHREjc report: on the road to preconception and personalized counselling with machine learning models. Fraire-Zamora J, Ali ZE, ... **Liperis G** ... Mincheva M. *Hum Reprod*, PMID: 35595227
- #ESHREjc report: Catch 22-is PGT a number game? Efficacy of PGT and the importance of counselling. Fraire-Zamora J, Serdarogullari M, ... **Liperis G**. *Hum Reprod*, PMID: 34999822
- 2021 #ESHREjc report: Trick or treatment – evidence based use of add-ons in ART and patient perspectives. **Liperis G**, Fraire-Zamora J ... Serdarogullari M. *Hum Reprod*, PMID: 34865048
- #ESHREjc live edition report: 'the forgotten Y'-advanced paternal age from a global health perspective. Massarotti C, Uraji J ... **Liperis G** ... Mincheva M. *Hum Reprod*, PMID: 34751767
- #ESHREjc report: Ovarian stimulation practice after the OPTIMIST trial and evidence-based practice. Makieva S, Massarotti C ... **Liperis G** ... Ammar O. *Hum Reprod*, PMID: 34293144
- #ESHREjc report: Is OTO-IVM the future fertility preservation alternative for urgent cancer patients? Massarotti C, Kohlhepp F, **Liperis G** ... Fraire-Zamora J. *Hum Reprod*, doi: 10.1093/humrep/deab180
- 2020 Clinical application, safety and efficacy of Day 4 biopsy for preimplantation genetic testing (PGT). A retrospective cohort analysis. **Liperis G**, Swearman H, Sjoblom C. *Hum Reprod*, Vol 35, Supp 1, P177, doi: 10.1093/humrep/35.Supplement_1.1
- 2019 Orchidopexy results in the recovery of sperm in the ejaculate of a non-obstructive azoospermic adult with bilateral cryptorchidism. A case report.

Duong HQ, Tang VKH, **Liperis G**, Khoa LD. *FANDR*, doi: 10.1142/S2661318219500014.

2018 pH: the silent variable significantly impacting meiotic spindle assembly in mouse oocytes. Swearman H, Koustas G, Knight E, **Liperis G**, Grupen C, Sjoblom C. *RBMO*, doi: 10.1016/j.rbmo.2018.06.022.

Fertilization by ICSI results in significantly higher aneuploidy rates compared to IVF, in embryos analysed for PGT-A by Next Generation Sequencing or Comparative Genome Hybridization (CGH) array. Swearman H, **Liperis G**, Crittenden J, Sjoblom C. *Fertility and Sterility*, Vol 110, Suppl 4S, P593, doi: 10.1016/j.fertnstert.2018.07.967.

2017 Clinical application of Day 4 biopsy for preimplantation genetic screening and diagnosis (PGS and PGD). A retrospective analysis of our current practice. **Liperis G**, ... Hellani A, Sjoblom C. *Hum Reprod*, Vol 32, Suppl 1, P204, doi: 10.1093/humrep/32.Supplement_1.1.

Book Chapters

2022 Quality Control in the IVF Laboratory. **George Liperis** & Cecilia Sjöblom. Principles of IVF Laboratory Practice; Optimising Performance and Outcomes, 2nd Edition Montag & Morbeck (editors), Cambridge University Press (in press).

2019 Control of Variables in the IVF Laboratory. Cecilia Sjoblom and **George Liperis**, In Vitro Fertilization; A Textbook of Current and Emerging Methods and Devices, 2nd Edition, Nagy, Varghese & Agarwal (editors), Springer Publishing.

2017 Quality Control in the IVF Laboratory. **George Liperis** & Cecilia Sjöblom, Principles of IVF Laboratory Practice; Optimising Performance and Outcomes Montag & Morbeck (editors).

Service

2022 – Present

Early Career Associate Editor of Reproduction & Fertility (RAF), the official journal of the Society for Reproduction and Fertility (SRF), an open-access, peer reviewed journal.

2021 – Present

Member of ESHRE journal club Editorial team involved in selection, preparation and delivery of the monthly ESHRE journal club.

2021 – Present

Member of the Editorial committee for the official magazine of ESHRE Focus on Reproduction, involved in the review of articles for publication

2017 - Present

Advanced Education and training of professionals in the field of assisted reproduction by involvement in international teaching and workshop execution as well as an invited expert to hospitals.

2017 - Present

Provision of support to Hospitals and Fertility Centres in the Asia Pacific region for implementation of accreditation based on the international code of practice (standard that fertility centres are audited outside the jurisdiction of the regulatory laws of Australia and New Zealand).

2013 – 2015

Involved in the amendment of the bill for assisted reproductive techniques in the Republic of Cyprus. Achieved it by liaising with members of Parliament.

Teaching

2017 - Present

Coordinator for preparation of content and delivering a series of lectures and assessments for the Sexual Health and Reproduction Master's program, module SEXH5420, University of Sydney.

2022 – Present

Auxiliary supervisor for Master of Science Students, University of Sydney, staff ID: 1168462.

2020 – 2021

Faculty for online certification course in 'Clinical Embryology and IVF laboratory process for clinicians' organised by Life in Vitro and Mediknit. Involvement in the creation of the syllabus and delivering a series of lectures.

2017 – 2020

Auxiliary supervisor for PhD Student Harriet Swearman, University of Sydney, staff ID: 1168462.

2012 - 2013

Tutoring for the module of Nutrition and Energy, School of Medicine, Faculty of Medicine and Health, University of Leeds.

2011 - 2013

Demonstrator for Biochemistry modules, Faculty of Biological Sciences, University of Leeds.

Peer reviews (ORCID: 0000-0001-9588-3392)

13	Journal of Assisted Reproduction and Genetics (JARG)
4	Reproductive BioMedicine Online (RBMO)
2	Reproduction and Fertility (RAF)
1	Human Reproduction Open (HROPEN)
1	Fertility & Reproduction (FANDR)
1	Human Fertility (HUM FERTIL)

Invited Lecturer

2023	Upper Egypt Assisted Reproduction (UEARS) 7 th conference. Invited as Faculty to deliver a number of lectures
2022	Fertility Society of AU & NZ (FSANZ) and Scientists in Reproductive Medicine (SIRT) annual Meeting. Invited to deliver a talk and debate with Prof. David Gardner on: Human Blastocyst ranking: standard grading or AI? During the SIRT meeting session: All hands on deck. Indian Society of Assisted Reproduction (ISAR) annual meeting. Invited as Faculty to deliver the lecture: The value of Semen Analysis in Fertility treatment.
2021	International Human Embryology Research Academy (iHERA) second annual virtual conference: embART 2021. Invited to deliver the lecture titled: Routine semen analysis. Should the WHO criteria for normal sperm be the driving force for selecting the fertilization method? Scientists in Reproductive Technology (SIRT). Invited to deliver the keynote lecture during the live meeting in Sydney for World's Embryologist Day titled: The decision – Why Embryologists should have the final say in selection of fertilization method. Sydney University Master's program in Reproductive Endocrinology and Infertility. Invited as a member of the expert panel to deliver an interactive discussion webinar on Fertility. International Human Embryology Research Academy (iHERA). Invited as Faculty to deliver a lecture titled: Mosaicism: The unexpected culprit.

- 2020 Fertility Society of Australia (FSA) and Scientists in Reproductive Technology (SIRT).
Invited to deliver a lecture at the Webinar titled: 'How to validate and calibrate temperature and pH measurements in an IVF laboratory delivering the lecture titled: Non-invasive pH monitoring technology as well as being a member of the panel discussions and Q&A.
- Asia Pacific Initiative on Reproduction (ASPIRE).
Invited as Faculty to speak at the Webinar titled 'Add-ons in the ART lab: Part 1' delivering the lecture titled: Sperm Selection Techniques as well as being member of the panel for case discussions and Q&A.
- International Human Embryology Research Academy (iHERA) first annual virtual conference: embART 2020.
Invited as Faculty to deliver the lecture titled: Use of day 4 biopsy as an alternative method of biopsy for PGT.
- Emcure Pharmaceuticals with International Human Embryology Research Academy (iHERA).
Invited as Faculty to deliver the Webinar titled: Fertilization markers for embryo selection.
- Ferring Pharmaceuticals.
Invited as a member of the expert panel to deliver the Webinar titled: Changing trends: Embryology practices in the COVID era.
- Mediknit in association with LifeInvitro academy.
Invited as a member of the expert panel from around the world to deliver the Webinar titled: Finding a needle in a haystack – trouble shooting in the IVF laboratory". Also recorded a Q & A session on the same subject.
- 2019 Association of Clinical Embryologists (ACE) 8th International Congress, Chennai, India.
Invited as faculty to provide hands on workshop teaching on oocyte vitrification, embryo biopsy and loading of cells additional to delivering a series of lectures including a keynote lecture during the main scientific programme and panel discussions addressed to Clinical Embryologists and Fertility providers from India.
- Keynote Lecture:
How overuse of ICSI can be avoided with having a good IVF program.
- Lectures:
Quality control and control of variables in the IVF laboratory.
Physiological response of oocyte to vitrification and warming process;
Tips and Tricks for an optimal outcome.
Clinical application, safety and efficacy of day 4 embryo biopsy.
- Member of the panel discussion:
Current practises for optimal Pre-implantation genetic testing.
- Member of the panel to judge:
Clinical oral presentations & Embryology oral presentations.
- 2017 Asia Pacific Initiative on Reproduction (ASPIRE) 3rd Masterclass: Preimplantation genetic testing. Screening and Diagnosis, Beijing, China.
Invited as faculty to provide hands on workshop teaching on embryo biopsy techniques additional to lectures and case discussions addressed to ICSI practitioners from the Asia-Pacific region.

Lectures:

When to Biopsy: Experience of Morula Biopsy.
Reagents and Consumables.
Introduction to difficult Problems for Discussion.
Different biopsy techniques.

Member of the panel discussions:

Difficult cases: Non-diagnostic cases and discordant results.
Difficult cases: Dealing with Mosaicism.

4th NSW Reproduction Forum.

Invited to deliver the lecture: Clinical application of Day 4 biopsy for preimplantation genetic screening and diagnosis.

Awards

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| 2010 | Best poster presentation award for Leeds Institute of Genetics and Health Therapeutics (LIGHT) annual postgraduate symposium.
Validation of GDF9 knockdown in ovine oocytes, following microinjection with siRNA. Liperis G , ... and Picton HM. |
| 2009 | Best poster presentation for the Fertility joint conference of the UK fertility societies awarded by the Society for Reproduction and Fertility.
The effect of doxorubicin on cultured mouse ovarian follicles. Liperis G , Murray AA and Spears N. |

Conferences

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| 2023 | Upper Egypt Assisted Reproduction (UEARS) 7 th conference
Invited as Faculty |
| 2022 | Fertility Society of AU & NZ (FSANZ) and Scientists in Reproductive Medicine (SIRT) annual Meeting.
Invited speaker.

European Society of Human Reproduction and Embryology (ESHRE) virtual annual meeting.
Organizing and delivering the live ESHRE journal club session. Poster presentation.

Asian Pacific Initiative on Reproduction (ASPIRE) annual meeting.
Oral presentation. |
| 2021 | EmbART 2.0 online Symposium for the best practices in Clinical Embryology.
Invited as faculty.

European Society of Human Reproduction and Embryology (ESHRE) virtual annual meeting.
Organizing and delivering the live ESHRE journal club. |

- 2020 European Society of Human Reproduction and Embryology (ESHRE) virtual annual meeting.
Poster presentation.
- EmbART first international online conference for the best practices in Clinical Embryology.
Invited as faculty.
- 2019 6th New South Wales (NSW) Reproduction Forum.
Attendee.
- Association of Clinical Embryologists (ACE) India 8th International Congress.
Invited as faculty.
- 2018 5th New South Wales (NSW) Reproduction Forum.
Attendee.
- American Society of Reproductive Medicine (ASRM) annual meeting.
Poster presentation.
- 2017 4th New South Wales (NSW) Reproduction Forum.
Invited speaker.
- Asia Pacific Initiative on Reproduction (ASPIRE) 3rd Masterclass on pre-implantation genetic testing – Screening and Diagnosis.
Invited as faculty.
- European Society of Human Reproduction and Embryology (ESHRE) annual meeting.
Poster presentation.
- 2016 Fertility Society Australia (FSA) annual meeting.
Attendee.
- 2013 Society of Reproduction and Fertility (SRF) annual meeting.
Oral presentation.
- 2012 Society of Reproduction and Fertility (SRF) annual meeting.
Poster presentation.
- 2011 Joint Fertility meeting of the UK fertility societies.
Attendee.
- 2010 Society of Reproduction and Fertility (SRF) annual meeting.
Attendee.
- 2009 Joint Fertility meeting of the UK fertility societies.
Poster presentation.
- 2008 Society of Reproduction and Fertility (SRF) annual meeting.
Poster presentation.
- 2006 Mediterranean Society for Reproductive Medicine (MSRM) annual meeting.
Attendee.

Memberships

2021 – Present

Member of the Fertility Society of AU and NZ (FSANZ).

2021 – Present

Member of the Scientists in Reproductive Technologies (SIRT).

2017 - Present

Member of the European Society of Human Reproduction and Embryology (ESHRE).

2008 - 2013

Member of Reproduction and Fertility (SRF).