



Anna Rapani

Reproductive Biologist, Postgraduate Researcher

ABOUT

Born in 31 May, 1991
Native Greek
Currently living in Athens
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EDUCATION

2017-2022

PhD Candidate and Postgraduate Researcher

Research Field: Human Reproduction

Medical School, Laboratory of Physiology, National and Kapodistrian University of Athens, Greece

Thesis: Evaluating microsurgical removal of a pronucleus (epronucleation) employing time-lapse technology in abnormally fertilized pre-implantation human embryos

2018-2022

4th year Medical Student

Medical School, University of Patras, Greece

2015-2017

MSc in Reproductive – Regenerative Medicine

Medical School, National and Kapodistrian University of Athens, Greece

Master's Thesis: Investigating circadian gene expression in mice embryos until blastocyst stage

2009-2014

BSc in Biology

National and Kapodistrian University of Athens, Greece

Internship experience in the Department of Forensic Medicine and Toxicology, Medical School of Athens

CLINICAL EXPERIENCE

2016-2020

Trainee Embryologist

Alexandra Hospital and Assisted Conception Unit, Second Department of Obstetrics and Gynaecology, Aretaieio Hospital, Medical School, University of Athens, Greece

INTERESTS

Caving (SPELEO caving club)
Scuba diving (Advanced Open Water PADI)
Sailing (HORC)
Swimming
Running
Pottery

PUBLICATIONS

1. Kalampokas T, **Rapani A**, Papageorgiou M, Grigoriadis S, Maziotis E, Anifandis G, Triantafyllidou O, Tzanakaki D, Neofytou S, Bakas P, Simopoulou M, Vlahos N. The Current Evidence Regarding COVID-19 and Pregnancy: Where Are We Now and Where Should We Head to Next? *Viruses*. 2021 Oct 5;13(10):2000. doi: 10.3390/v13102000. PMID: 34696430; PMCID: PMC8541470.
2. Sfakianoudis K, **Rapani A**, Grigoriadis S, Pantou A, Maziotis E, Kokkini G, Tsirligkani C, Bolaris S, Nikolettos K, Chronopoulou M, Pantos K, Simopoulou M. The Role of Uterine Natural Killer Cells on Recurrent Miscarriage and Recurrent Implantation Failure: From Pathophysiology to Treatment. *Biomedicines*. 2021 Oct 9;9(10):1425. doi: 10.3390/biomedicines9101425. PMID: 34680540; PMCID: PMC8533591.
3. Pantos K, Simopoulou M, Maziotis E, **Rapani A**, Grigoriadis S, Tsioulou P, Giannelou P, Nitsos N, Tzonis P, Koutsilieris M, Sfakianoudis K. Introducing intrauterine antibiotic infusion as a novel approach in effectively treating chronic endometritis and restoring reproductive dynamics: a randomized pilot study. *Sci Rep*. 2021 Aug 2;11(1):15581. doi: 10.1038/s41598-021-95072-w. PMID: 34341409; PMCID: PMC8329177.
4. Simopoulou M, Sfakianoudis K, Maziotis E, Tsioulou P, Grigoriadis S, **Rapani A**, Giannelou P, Asimakopoulou M, Kokkali G, Pantou A, Nikolettos K, Vlahos N, Pantos K. PGT-A: who and when? A systematic review and network meta-analysis of RCTs. *J Assist Reprod Genet*. 2021 Aug;38(8):1939-1957. doi: 10.1007/s10815-021-02227-9. Epub 2021 May 25. PMID: 34036455; PMCID: PMC8417193.
5. Simopoulou M, **Rapani A**, Grigoriadis S, Pantou A, Tsioulou P, Maziotis E, Tzanakaki D, Triantafyllidou O, Kalampokas T, Siristatidis C, Bakas P, Vlahos N. Getting to Know Endometriosis-Related Infertility Better: A Review on How Endometriosis Affects Oocyte Quality and Embryo Development. *Biomedicines*. 2021 Mar 9;9(3):273. doi: 10.3390/biomedicines9030273. PMID: 33803376; PMCID: PMC7998986.
6. **Rapani A**, Nikiforaki D, Karagkouni D, Sfakianoudis K, Tsioulou P, Grigoriadis S, Maziotis E, Pantou A, Voutsina A, Pantou A, Koutsilieris M, Hatzigeorgiou A, Pantos K, Simopoulou M. Reporting on the Role of miRNAs and Affected Pathways on the Molecular Backbone of Ovarian Insufficiency: A Systematic Review and Critical Analysis Mapping of Future Research. *Front Cell Dev Biol*. 2021 Jan 12;8:590106. doi: 10.3389/fcell.2020.590106. PMID: 33511114; PMCID: PMC7835544.
7. Pantos K, Sfakianoudis K, Maziotis E, **Rapani A**, Karantzali E, Gounari-Papaioannou A, Vaxevanoglou T, Koutsilieris M, Simopoulou M. Abnormal fertilization in ICSI and its association with abnormal semen parameters: a retrospective observational study on 1855 cases. *Asian J Androl*. 2021 Jul-Aug;23(4):376-385. doi: 10.4103/aja.aja_84_20. PMID: 33510051; PMCID: PMC8269831.
8. Sfakianoudis K, Tsioulou P, Maziotis E, Grigoriadis S, Glava A, Nitsos N, Giannelou P, Makrakis E, Pantou A, **Rapani A**, Koutsilieris M, Mastorakos G, Pantos K, Simopoulou M. Investigating apoptotic, inflammatory, and growth markers in poor responders undergoing natural in vitro fertilization cycles: a pilot study. *Ann N Y Acad Sci*. 2021 Apr;1489(1):78-90. doi: 10.1111/nyas.14517. Epub 2020 Nov 14. PMID: 33188643.
9. Maziotis E, Sfakianoudis K, Giannelou P, Grigoriadis S, **Rapani A**, Tsioulou P, Nikolettos K, Pantou A, Tiptiri-Kourpeti A, Koutsilieris M, Asimakopoulos B, Nikolettos N, Pantos K, Simopoulou M. Evaluating the value of day 0 of an ICSI cycle on indicating laboratory outcome. *Sci Rep*. 2020 Nov 9;10(1):19325. doi: 10.1038/s41598-020-75164-9. PMID: 33168856; PMCID: PMC7653966.
10. Simopoulou M, Sfakianoudis K, Giannelou P, **Rapani A**, Siristatidis C, Bakas P, Vlahos N, Pantos K. Navigating assisted reproduction treatment in the time of COVID-19: concerns and considerations. *J Assist Reprod Genet*. 2020 Nov;37(11):2663-2668. doi: 10.1007/s10815-020-01942-z. Epub 2020 Sep 16. PMID: 32939662; PMCID: PMC7494248.
11. Konstantopoulos A, Sfakianoudis K, Simopoulou M, Kontogeorgi A, **Rapani A**, Grigoriadis S, Pantou A, Bathrellos N, Grammatas A, Pantos K. Early Onset Preeclampsia Diagnosis Prior to the 20th Week of Gestation in a Twin Pregnancy Managed via Selective Reduction of an Intrauterine Growth Restriction Fetus: A Case Report and Literature Review. *Diagnostics (Basel)*. 2020 Jul 29;10(8):531. doi: 10.3390/diagnostics10080531. PMID: 32751319; PMCID: PMC7460518.
12. Sfakianoudis K, **Rapani A**, Grigoriadis S, Retsina D, Maziotis E, Tsioulou P, Giannelou P, Pantos K, Koutsilieris M, Vlahos N, Mastorakos G, Simopoulou M. Novel Approaches in Addressing Ovarian Insufficiency in 2019: Are We There Yet? *Cell Transplant*. 2020 Jan-Dec;29:963689720926154. doi: 10.1177/0963689720926154. PMID: 32686983; PMCID: PMC7563844.

13. Sfakianoudis K, Simopoulou M, Grigoriadis S, Pantou A, Tsioulou P, Maziotis E, **Rapani A**, Giannelou P, Nitsos N, Kokkali G, Koutsilieris M, Pantos K. Reactivating Ovarian Function through Autologous Platelet-Rich Plasma Intraovarian Infusion: Pilot Data on Premature Ovarian Insufficiency, Perimenopausal, Menopausal, and Poor Responder Women. *J Clin Med*. 2020 Jun 10;9(6):1809. doi: 10.3390/jcm9061809. PMID: 32532000; PMCID: PMC7355907.
14. Simopoulou M, Sfakianoudis K, Maziotis E, **Rapani A**, Giannelou P, Pantou A, Anifandis G, Bakas P, Vlahos N, Pantos K, Koutsilieris M. Assessing Clinical Embryology Research: A Global Bibliometric Analysis. *Medicina (Kaunas)*. 2020 Apr 26;56(5):210. doi: 10.3390/medicina56050210. PMID: 32357468; PMCID: PMC7279470.
15. Pantos K, Sfakianoudis K, Grigoriadis S, Maziotis E, Tsioulou P, **Rapani A**, Giannelou P, Atzamos A, Koulouraki S, Koutsilieris M, Vlahos N, Mastorakos G, Simopoulou M. Could the Age Difference of a Single Calendar Year between Patients Undergoing IVF at 34, 35 or at 36 Years Old Affect the IVF Outcome? A Retrospective Data Analysis. *Medicina (Kaunas)*. 2020 Feb 24;56(2):92. doi: 10.3390/medicina56020092. PMID: 32102386; PMCID: PMC7074270.
16. Sfakianoudis K, Pantos K, Grigoriadis S, **Rapani A**, Maziotis E, Tsioulou P, Giannelou P, Kontogeorgi A, Pantou A, Vlahos N, Koutsilieris M, Simopoulou M. What is the true place of a double stimulation and double oocyte retrieval in the same cycle for patients diagnosed with poor ovarian reserve? A systematic review including a meta-analytical approach. *J Assist Reprod Genet*. 2020 Jan;37(1):181-204. doi: 10.1007/s10815-019-01638-z. Epub 2019 Dec 3. PMID: 31797242; PMCID: PMC7000611.
17. Simopoulou M, Sfakianoudis K, Giannelou P, **Rapani A**, Maziotis E, Tsioulou P, Grigoriadis S, Simopoulos E, Mantas D, Lambropoulou M, Koutsilieris M, Pantos K, Harper JC. Discarding IVF embryos: reporting on global practices. *J Assist Reprod Genet*. 2019 Dec;36(12):2447-2457. doi: 10.1007/s10815-019-01592-w. Epub 2019 Dec 1. PMID: 31786731; PMCID: PMC6911130.
18. Sfakianoudis K, Simopoulou M, **Rapani A**, Grigoriadis S, Maziotis E, Giannelou P, Pantou A, Vaxevanoglou T, Fakiridou M, Koutsilieris M, Pantos K. The Impact of the Economic Recession in Greece on Assisted Reproduction Demand: A Retrospective Longitudinal Study. *Medicina (Kaunas)*. 2019 Sep 29;55(10):654. doi: 10.3390/medicina55100654. PMID: 31569483; PMCID: PMC6843187.
19. Kiriakopoulos N, Grigoriadis S, Maziotis E, Philippou A, **Rapani A**, Giannelou P, Tsioulou P, Sfakianoudis K, Kontogeorgi A, Bakas P, Mastorakos G, Koutsilieris M, Simopoulou M. Investigating Stress Response during Vaginal Delivery and Elective Cesarean Section through Assessment of Levels of Cortisol, Interleukin 6 (IL-6), Growth Hormone (GH) and Insulin-Like Growth Factor 1 (IGF-1). *J Clin Med*. 2019 Jul 27;8(8):1112. doi: 10.3390/jcm8081112. PMID: 31357604; PMCID: PMC6723771.
20. Simopoulou M, Sfakianoudis K, Tsioulou P, **Rapani A**, Giannelou P, Kiriakopoulos N, Pantou A, Vlahos N, Anifandis G, Bolaris S, Pantos K, Koutsilieris M. What will the future hold for artificial organs in the service of assisted reproduction: prospects and considerations. *Front Med*. 2019 Dec;13(6):627-638. doi: 10.1007/s11684-019-0697-5. Epub 2019 Jul 12. PMID: 31300970.
21. Pantos K, Simopoulou M, Pantou A, **Rapani A**, Tsioulou P, Nitsos N, Syrkos S, Pappas A, Koutsilieris M, Sfakianoudis K. A Case Series on Natural Conceptions Resulting in Ongoing Pregnancies in Menopausal and Prematurely Menopausal Women Following Platelet-Rich Plasma Treatment. *Cell Transplant*. 2019 Sep-Oct;28(9-10):1333-1340. doi: 10.1177/0963689719859539. Epub 2019 Jul 4. PMID: 31271054; PMCID: PMC6767896.
22. Kontopoulos G, Simopoulou M, Zervomanolakis I, Prokopakis T, Dimitropoulos K, Dedoulis E, Grigorakis S, Agapitou K, Nikitos E, **Rapani A**, Vlahos N. Cleavage Stage versus Blastocyst Stage Embryo Transfer in Oocyte Donation Cycles. *Medicina (Kaunas)*. 2019 Jun 20;55(6):293. doi: 10.3390/medicina55060293. PMID: 31226849; PMCID: PMC6631639.
23. Simopoulou M, Sfakianoudis K, Tsioulou P, **Rapani A**, Maziotis E, Giannelou P, Grigoriadis S, Pantou A, Nikolettos K, Vlahos N, Pantos K, Koutsilieris M. Should the flexibility enabled by performing a day-4 embryo transfer remain as a valid option in the IVF laboratory? A systematic review and network meta-analysis. *J Assist Reprod Genet*. 2019 Jun;36(6):1049-1061. doi: 10.1007/s10815-019-01475-0. Epub 2019 May 20. PMID: 31111304; PMCID: PMC6603118.
24. Pantou A, Simopoulou M, Sfakianoudis K, Giannelou P, **Rapani A**, Maziotis E, Grigoriadis S, Tsioulou P, Syrkos S, Souretis K, Koutsilieris M, Pantos K. The Role of Laparoscopic Investigation in Enabling Natural Conception and Avoiding in vitro Fertilization Overuse for Infertile Patients of Unidentified Aetiology and Recurrent Implantation Failure Following in vitro Fertilization. *J Clin Med*. 2019 Apr 22;8(4):548. doi: 10.3390/jcm8040548. PMID: 31013645; PMCID: PMC6517944.

25. Simopoulou M, Sfakianoudis K, Giannelou P, Pierouli A, **Rapani A**, Maziotis E, Galatis D, Bakas P, Vlahos N, Pantos K, Koutsilieris M. Treating Infertility: Current Affairs of Cross-border Reproductive Care. *Open Med (Wars)*. 2019 Mar 12;14:292-299. doi: 10.1515/med-2019-0026. PMID: 30931395; PMCID: PMC6434662.
26. Sfakianoudis K, Simopoulou M, Maziotis E, Giannelou P, Tsioulou P, **Rapani A**, Pantou A, Petroutsou K, Angeli I, Deligeoroglou E, Koutsilieris M, Pantos K. Evaluation of the Second Follicular Wave Phenomenon in Natural Cycle Assisted Reproduction: A Key Option for Poor Responders through Luteal Phase Oocyte Retrieval. *Medicina (Kaunas)*. 2019 Mar 14;55(3):68. doi: 10.3390/medicina55030068. PMID: 30875815; PMCID: PMC6473900.
27. Sfakianoudis K, Simopoulou M, Nitsos N, Lazaros L, **Rapani A**, Pantou A, Koutsilieris M, Nikas Y, Pantos K. Successful Implantation and Live Birth Following Autologous Platelet-rich Plasma Treatment for a Patient with Recurrent Implantation Failure and Chronic Endometritis. *In Vivo*. 2019 Mar-Apr;33(2):515-521. doi: 10.21873/invivo.11504. PMID: 30804135; PMCID: PMC6506282.
28. Simopoulou M, Sfakianoudis K, Maziotis E, Grigoriadis S, Giannelou P, **Rapani A**, Tsioulou P, Pantou A, Kalampokas T, Vlahos N, Pantos K, Koutsilieris M. The Impact of Autoantibodies on IVF Treatment and Outcome: A Systematic Review. *Int J Mol Sci*. 2019 Feb 19;20(4):892. doi: 10.3390/ijms20040892. PMID: 30791371; PMCID: PMC6412530.
29. Sfakianoudis K, Simopoulou M, Nitsos N, **Rapani A**, Pappas A, Pantou A, Chronopoulou M, Deligeoroglou E, Koutsilieris M, Pantos K. Autologous Platelet-Rich Plasma Treatment Enables Pregnancy for a Woman in Premature Menopause. *J Clin Med*. 2018 Dec 20;8(1):1. doi: 10.3390/jcm8010001. PMID: 30577435; PMCID: PMC6352170.
30. Sfakianoudis K, Simopoulou M, Nikas Y, **Rapani A**, Nitsos N, Pierouli K, Pappas A, Pantou A, Markomichali C, Koutsilieris M, Pantos K. Efficient treatment of chronic endometritis through a novel approach of intrauterine antibiotic infusion: a case series. *BMC Womens Health*. 2018 Dec 5;18(1):197. doi: 10.1186/s12905-018-0688-8. PMID: 30518370; PMCID: PMC6280440.
31. Simopoulou M, Sfakianoudis K, Bakas P, Giannelou P, Papapetrou C, Kalampokas T, **Rapani A**, Chatzaki E, Lambropoulou M, Lourida C, Deligeoroglou E, Pantos K, Koutsilieris M. Postponing Pregnancy Through Oocyte Cryopreservation for Social Reasons: Considerations Regarding Clinical Practice and the Socio-Psychological and Bioethical Issues Involved. *Medicina (Kaunas)*. 2018 Oct 25;54(5):76. doi: 10.3390/medicina54050076. PMID: 30366459; PMCID: PMC6262467.
32. Sfakianoudis K, Simopoulou M, Nitsos N, **Rapani A**, Pantou A, Vaxevanoglou T, Kokkali G, Koutsilieris M, Pantos K. A Case Series on Platelet-Rich Plasma Revolutionary Management of Poor Responder Patients. *Gynecol Obstet Invest*. 2019;84(1):99-106. doi: 10.1159/000491697. Epub 2018 Aug 22. PMID: 30134239.
33. 4: Simopoulou M, Sfakianoudis K, Tsioulou P, **Rapani A**, Anifandis G, Pantou A, Bolaris S, Bakas P, Deligeoroglou E, Pantos K, Koutsilieris M. Risks in Surrogacy Considering the Embryo: From the Preimplantation to the Gestational and Neonatal Period. *Biomed Res Int*. 2018 Jul 17;2018:6287507. doi: 10.1155/2018/6287507. PMID: 30112409; PMCID: PMC6077588.
34. Simopoulou M, Sfakianoudis K, Antoniou N, Maziotis E, **Rapani A**, Bakas P, Anifandis G, Kalampokas T, Bolaris S, Pantou A, Pantos K, Koutsilieris M. Making IVF more effective through the evolution of prediction models: is prognosis the missing piece of the puzzle? *Syst Biol Reprod Med*. 2018 Oct;64(5):305-323. doi: 10.1080/19396368.2018.1504347. Epub 2018 Aug 8. PMID: 30088950.
35. Simopoulou M, Sfakianoudis K, Maziotis E, Antoniou N, **Rapani A**, Anifandis G, Bakas P, Bolaris S, Pantou A, Pantos K, Koutsilieris M. Are computational applications the "crystal ball" in the IVF laboratory? The evolution from mathematics to artificial intelligence. *J Assist Reprod Genet*. 2018 Sep;35(9):1545-1557. doi: 10.1007/s10815-018-1266-6. Epub 2018 Jul 27. PMID: 30054845; PMCID: PMC6133811.
36. Simopoulou M, Sfakianoudis K, **Rapani A**, Giannelou P, Anifandis G, Bolaris S, Pantou A, Lambropoulou M, Pappas A, Deligeoroglou E, Pantos K, Koutsilieris M. Considerations Regarding Embryo Culture Conditions: From Media to Epigenetics. *In Vivo*. 2018 May-Jun;32(3):451-460. doi: 10.21873/invivo.11261. PMID: 29695546; PMCID: PMC6000787.