# CURRICULUM VITAE

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| **Name** | Antonio Capalbo |
| **Title** | PhD |
| **E-mail** | Antonio.Capalbo@unich.it<br>antcapalbo@gmail.com |
| **Current position(s)** | 1) **Chief Scientific Officer (CSO) Juno Genetics**<br>**2) Researcher, Department of Excellence of Neuroscience Imaging and Clinical Sciences, "G. d'Annunzio" and Center for Advanced Studies and Technology (CAST), University of Chieti-Pescara, Chieti, Italy** |
| **Education/training** | ***2024-*** *Habilitation for university ordinary professorship, first band (Abilitazione Scientifica Nazionale, ASN, MED/03) in medical genetics.*<br>***2022-*** *Habilitation for university professorship, Medical Genetics*<br>***2021*** *2nd Ph.D., Morphogenesis and Tissue Engineering, "Sapienza" University of Rome, Italy*<br>***2011*** *Ph.D., Human Genetics, Catholic University of Sacred Heart of Rome, Italy*<br>***2011*** *MSc, Epidemiology and Biostatistical Data Analysis, Catholic University of Sacred Heart of Rome, Italy*<br>***2010*** *Certification "Clinical Biologist", European Society of Human Reproduction and Embryology (ESHRE)*<br>***2006-2010*** *Residency, Medical Genetics, Catholic University of Sacred Heart of Rome, Italy*<br>***2006*** *BSc in Biotechnology, "Sapienza" University of Rome, Italy* |
| **Scientific career profile** | *From 2008 working as a clinical embryologist, pioneering embryo biopsy approaches and applications. Clinical research focused on preimplantation genetic testing and on the development of novel molecular biology techniques to improve pregnancy. Basic research focused on the mechanisms of aneuploidies in oocytes and preimplantation human embryos. PI of the Grant for Fertility Innovation, Merk-Serono (2013, 2015), NNF Young Investigator (2018). Genetic counsellor and PGD/PGS program coordinator at GENERA. Italy (2012-2017), Scientific and Laboratory Director at GENETYX (2013-2017). Co-founder and director of the largest PGT program in Italy and Europe (2012-2022). Currently working as Chief Scientific Officer at Juno Genetics. In Academy, he is currently researcher at the department of Excellence of Neuroscience Imaging and Clinical Sciences, "G. d'Annunzio" and Center for Advanced Studies and Technology (CAST), University of Chieti-Pescara, Chieti, Italy. Since 2016 Advanced reviewer for the European Research Council. Coordinator of the ESHRE SIG in Reproductive Genetics. Associate Editor for Human Reproduction and a Section Editor of Reproductive BioMedicine Online. Furthermore, a regular reviewer for many journals in the field of reproductive biology and genetics (Human Reproduction Update, Fertility and Sterility, Scientific Reports, NEJM, Nature Com, AJHG, PNAS, etc).* |

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| **Bibliometric summary** | *More than 120 publications, 26 first authorships, 22 last authorships, 5.398 citations, h-index 40.*<br><br>List of the 10 most significant publications:<br>1. Girardi, L., … Simón, C., & **Capalbo, A**. (2023). The use of copy number loads to designate mosaicism in blastocyst stage PGT-A cycles: fewer is better. ***Human Reproduction***, 38(5), 982-991.<br>2. Buonaiuto, S., I. D. Biase, **Capalbo, A**., & Colonna, V. 2022. Prioritization of putatively detrimental variants in euploid miscarriages. ***Scientific Reports*** 12(1), 1-13.<br>3. Gruhn, J. R., … **Capalbo, A**., …, & Hoffmann, E. R. (2019). Chromosome errors in human eggs shape natural fertility over reproductive life span. ***Science***, 365(6460), 1466-1469.<br>4. Definition and validation of a custom protocol to detect miRNAs in the spent media after blastocyst culture: searching for biomarkers of implantation. ***Human Reproduction***, 34(9), 1746-1761.<br>5. & Chinnery, P. F. (2018). Segregation of mitochondrial DNA heteroplasmy through a developmental genetic bottleneck in human embryos. ***Nature Cell Biology***, 20(12), 1444-1452.<br>6. **Capalbo, A**., Hoffmann, E. R., …, & Rienzi, L. (2017). Human female meiosis revised: new insights into the mechanisms of chromosome segregation and aneuploidies from advanced genomics and time-lapse imaging. ***Human Reproduction Update***, 23(6), 706-722.<br>7. Ottolini, C. S*., **Capalbo, A***., …, & Handyside, A. H. (2016). Generation of meiomaps of genome-wide recombination and chromosome segregation in human oocytes. ***Nature Protocols***, 11(7), 1229-1243.<br>8. Ottolini, C. S.*, **Capalbo, A**.*, …, & Hoffmann, E. R. (2015). Genome-wide maps of recombination and chromosome segregation in human oocytes and embryos show selection for maternal recombination rates. ***Nature Genetics***, 47(7), 727-735.<br>9. **Capalbo, A**., Rienzi, L., …, & Ubaldi, F. M. (2014). Correlation between standard blastocyst morphology, euploidy and implantation: an observational study in two centers involving 956 screened blastocysts. ***Human Reproduction*****,** 29(6), 1173-1181.<br>10. **Capalbo, A**., S. Bono, L. Spizzichino, A. Biricik, M. Baldi, S. Colamaria, F. M. Ubaldi, et al. 2013. Sequential comprehensive chromosome analysis on polar bodies, blastomeres and trophoblast: insights into female meiotic errors and chromosomal segregation in the preimplantation window of embryo development. ***Human Reproduction****,* 28(2) 509–518. |