Violet™ by Future Fertility

Egg Freezing Insights
Image-based AI assessment of egg quality for cryopreservation

Clinic Logo Here

Valentina's Personalized Egg Quality Assessment

Patient		Clinic		Report	
Patient ID	123456	**Doctor**	Maria García Ramírez	**Date of Retrieval**	07 Oct 2024
Patient Name	Valentina González	**Clinic**	Future Fertility Clinic	**Age at Retrieval**	28 years old
Date of Birth	19 Aug 1996	**Phone**	(123) 456-7890	**# of Mature Oocytes**	12
Date of Report	08 Oct 2024	**Email**	info@clinic.com		

VIOLET™ is an image-based AI tool that assesses *oocyte* (egg) quality and provides a personalized probability for each oocyte. A higher probability indicates greater chances of an oocyte to develop into a *blastocyst* (day 5-7 embryo) and to be *euploid* (23 pairs of chromosomes).

Oocytes Evaluated
Number of Mature Oocytes Evaluated

12 MATURE OOCYTES — Assessed by VIOLET™

Blastocyst Prediction
Predicted # of Day 5-7 Embryos

Personalized chances of your eggs successfully thawing and developing *blastocyst* embryos.

AT LEAST 1 BLASTOCYST	MOST LIKELY OUTCOME
97 % PROBABILITY	**3-4** BLASTOCYSTS

# OF BLASTOCYSTS	0	1-2	**3-4**	5-6	7-9	10-12
PROBABILITY	3 %	14 %	**80 %**	2 %	1 %	0 %

Euploidy Prediction
Predicted # of Euploid Blastocysts

Personalized chances of your eggs successfully thawing and developing *euploid* blastocysts.

AT LEAST 1 EUPLOID	MOST LIKELY OUTCOME
68 % PROBABILITY	**1-2** EUPLOIDS

# OF EUPLOIDS	0	**1-2**	3-4	5-6	7-9	10-12
PROBABILITY	3 %	**78 %**	16 %	2 %	1 %	0 %

Live Birth Prediction
Potential to Have a Baby

Personalized chances of having a baby (*live birth*) from your retrieved eggs based on VIOLET™ assessment and statistical modelling.

AT LEAST 1 LIVE BIRTH	AT LEAST 2 LIVE BIRTHS
46 % PROBABILITY	**14 %** PROBABILITY

Your personalized VIOLET™ prediction for having at least 1 baby is
LOWER THAN AVERAGE
Compared to **56-69%** predictions from generic live birth calculators that are based only on your age (**28y**) & number of mature oocytes frozen (**12**).

Comparison to Age Average
To Have at Least 1 Baby

Valentina's Egg Images & AI Predictions

Patient ID	123456
Patient Name	Valentina González
Date of Birth / Age	19 Aug 1996 / 28y

Egg images shown at 20-40x magnification, include probability of becoming a blastocyst embryo & euploid blastocyst. Not all eggs reach blastocyst stage & fewer will become euploid. Euploidy prediction threshold is 28%.

- ≥28% are more likely to result in a euploid
- <28% are less likely to result in a euploid

Straw 1 | 1 of 3

Egg 1

71 % BLASTOCYST

40 % EUPLOID

Egg 2

43 % BLASTOCYST

25 % EUPLOID

Egg 3

35 % BLASTOCYST

21 % EUPLOID

Straw 2 | 2 of 3

Egg 4

19 % BLASTOCYST

6 % EUPLOID

Egg 5

83 % BLASTOCYST

49 % EUPLOID

Egg 6

14 % BLASTOCYST

11 % EUPLOID

Violet™ by Future Fertility

Egg Freezing Insights
Image-based AI assessment of egg quality for cryopreservation

Clinic Logo Here

Valentina's Egg Images & AI Predictions

Patient ID	123456
Patient Name	Valentina González
Date of Birth / Age	19 Aug 1996 / 28y

Egg images shown at 20-40x magnification, include probability of becoming a blastocyst embryo & euploid blastocyst. Not all eggs reach blastocyst stage & fewer will become euploid. Euploidy prediction threshold is 28%.

- ≥28% are more likely to result in a euploid
- <28% are less likely to result in a euploid

Straw 3 | 3 of 3

Egg 7

55 % BLASTOCYST

38 % EUPLOID

Egg 8

21 % BLASTOCYST

17 % EUPLOID

Egg 9

77 % BLASTOCYST

45 % EUPLOID

Egg 10

25 % BLASTOCYST

18 % EUPLOID

Egg 11

19 % BLASTOCYST

14 % EUPLOID

Egg 12

44 % BLASTOCYST

29 % EUPLOID

Violet™ by Future Fertility

Egg Freezing Insights
Image-based AI assessment of egg quality for cryopreservation

Clinic Logo Here

Patient Resources

Oocyte Retrieval
Retrieve & assess mature oocytes following ovarian stimulation

Oocyte Freezing & Thawing
Mature oocytes are cryopreserved & thawed when ready to be used

Fertilization
Mature oocytes are fertilized with sperm

Assess & Transfer Blastocyst
Embryos that reach blastocyst stage may be tested for euploidy and selected for transfer / freezing

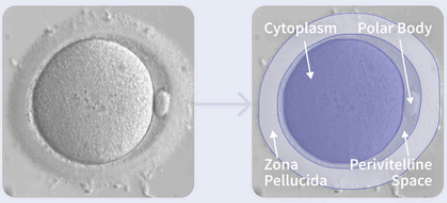
Implantation
Embryo implants into uterine lining as determined by serum blood test

Clinical Pregnancy
Detection of fetal sac & heartbeat from ultrasound

Live Birth
Successful delivery of a baby

How Our AI Model Works

The Science Behind the AI Predictions



Mature Oocyte *AI-Based Segmentation*

- **VIOLET™ AI** non-invasively analyzes mature oocyte cell structures and minuscule, pixel-level image details.
- A "mask" automatically segments critical areas of the cell for the AI model to assess.
- The model applies patterns and learnings from a database of 650k+ images and real-life developmental outcomes from clinics across the world to calculate personalized predictions for each of your oocytes.

Find More Resources Online

- Read our scientific research publications
- Find more FAQs
- View our blog posts
- And much more!

futurefertility.com/violet-my-report

Definitions

- **Mature Oocyte** An egg that is fully developed & ready to be fertilized by sperm.
- **Blastocyst** Embryo development stage that occurs between days 5-7 after fertilization.
- **Euploid Blastocyst** A blastocyst embryo that contains the correct number of chromosomes (23 pairs) & is correlated with greater chances of pregnancy success.
- **Semen Analysis** Sperm evaluation based on sample concentration, motility, & morphology.
- **Receptive Uterus** Lining of uterus is in ideal condition for an embryo to implant.
- **Live Birth** Successful delivery of a baby.

Frequently Asked Questions

Why does VIOLET™ only analyze mature oocytes?
Mature oocytes (eggs) have completed the developmental stages to enable fertilization and are therefore suitable for egg freezing and VIOLET™ analysis.

Why is blastocyst development and euploidy important to consider in egg freezing?
Reaching the blastocyst stage is a key milestone because these embryos have a higher chance of implantation when they are transferred into the uterus. Euploidy blastocysts are considered chromosomally normal embryos, having 23 pairs of chromosomes, and have lower rates of genetic errors and are more likely to develop into a healthy baby. It is important to remember that even euploid blastocyst may not result in a live birth, because of other processes and factors that need to occur to support implantation and ultimately a successful pregnancy.

How is the live birth prediction determined?
Your live birth prediction is based on (1) your personalized egg quality assessed by VIOLET™ and (2) statistical modelling which accounts for impacts of egg freezing and thawing, as well as the euploidy predictions which influence your chances of reaching live birth. The prediction estimates the chances that you will have at least one or two babies from all the eggs you froze.

How does the live birth prediction impact my fertility planning?
Your unique prediction is compared to a standard approach of calculating live birth which uses only your age group and total number of eggs. If the live birth prediction is lower than expected, you may decide to pursue additional egg freezing cycles to increase your cumulative chance of success. If you pursue multiple cycles, Future Fertility provides a complimentary VIOLET™ summary report with updated calculations based on your eggs and their unique predictions.

650k+
Oocyte Images
WORLD LEADING DATASET

7
Scientific Papers
PUBLISHED IN PEER REVIEWED JOURNALS

100+
Abstracts
AT ACADEMIC CONFERENCES

300+
Clinics
ACROSS 35+ COUNTRIES

4
Patient Awards
FOR INNOVATION IN FERTILITY CARE

2024 Fertility Care Awards WINNER

Disclaimer & Additional Information

VIOLET™ is an AI-based predictive model consisting of an ensemble of custom deep neural networks trained to analyze 2D images of oocytes to predict blastocyst development and ploidy status [1-3]. Outcome predictions are based on proprietary technology combining VIOLET™ image analysis (Oocytes > Blastocysts and Ploidy) and statistical modeling (Euploid blastocyst > Live Birth) [4-9]. Assessments may be affected by image quality and assume a normal semen analysis, without specific uterine receptivity issues.

Future Fertility strives to provide the most precise results using state-of-the-art technologies and software development. VIOLET™ is not intended to substitute professional medical advice or replace the patient-doctor consultation. Please speak to your health care provider about your circumstances prior to making any decisions. Commercially available as per: CE Mark, Health Canada, MHRA & ANVISA. ISO 13485, HIPAA and GDPR compliant. For investigational use only in USA. IRB Tracking Number: 2021-2732-6559-2. Patent futurefertility.com/en/virtual-patent-marking

ℹ Looking for the articles we reference? Have a look at our research from the QR Code above

Feedback & Support

For questions or ideas, please contact our Customer Support team
support@futurefertility.com

For clinical inquiries, please contact our Medical Director
md@futurefertility.com

Version

Violet Cryo R5.0 | OBv3.0 & OEv3.0 | RPv3.0