Paving your Way to Enhanced IVF Care with AI and Digital Transformation
Revolutionizing IVF: Embrace the Digital Age with the Leading AI Innovator

AIVF paves the way toward digital transformation and gives you a competitive edge in the quest to improve your patients’ path to parenthood, provide ever-personalized care, and reduce pressure on your care, laboratory, and administrative teams.

Our premier, AI-driven solution, EMA by AIVF™, transforms IVF clinics and labs with an innovative suite of digital tools. EMA streamlines the journey to parenthood, making it more efficient, seamless, and accessible for everyone involved in the IVF process.

Increase Operational Capacity with Technology

EMA streamlines IVF laboratory workflows for enhanced efficiency, efficacy, and quality of care.

Implementing AIVF’s advanced system leads to a 64% enhancement in workflow efficiency and enables clinics to expand their capacity by over 30% without the need for extra staff or additional working hours. This strategic integration not only streamlines operations but also positively impacts both revenue growth and cost savings1.

1 Data on file
EMA by AIVF™ - A Breakthrough in Fertility Intelligence

- Time-lapse Incubator Connectivity
- Task Management & Documentation (Coming soon)
- AIVF Day-3 TLI only
- AIVF Day-5 TLI only
- AIVF Genetics TLI only
- Electronic Medical Record (EMR) Connectivity
- Advanced IVF Analytics
- 24/7 Remote Connectivity
- Streamlined Communications & Integrated Messaging Dashboard
EMA’s Key Modules and Features

**AIVF Day-3**
AI-powered, fully automated, cleavage-stage triage tool.*

**AIVF Genetics**
AI-powered, non-invasive real-time prediction of the embryo genetic makeup.*

**Time-lapse Incubator Connectivity**
Seamlessly connects simultaneously to multiple time-lapse incubator manufacturers and presents patient information on one central screen.

**EMR Integration**
Integrates seamlessly with electronic medical record (EMR) systems, offering vital insights and revealing impactful trends that significantly enhance laboratory performance.

**AIVF Day-5**
AI-powered, fully automated, blastocyst-stage triage tool.*

**Advanced IVF Analytics**
Evaluates key performance indicators to assess clinic and lab efficiency, providing a clearer insight into patient outcomes.

**Messaging Dashboard**
A central instant messaging feature simplifies communication by allowing secure messaging, easy sharing of reports, and consultations among andrologists, embryologists, patient coordinators, and team members, enhancing patient care.

**Remote**
Secure, 24/7 remote connectivity from any device.

*Available on time-lapse incubator only
End-to-End AI Embryo Evaluation

AIVF presents an end-to-end AI embryo evaluation approach that takes into account visual quality, morphokinetics and ploidy probability for every embryo. The company’s AI offering includes three different modules, AIVF Day-5, AIVF Day-3 and AIVF Genetics that were trained and validated on different known outcomes*. As each AI module adds an additional layer of knowledge, the care team gains a holistic understanding of the embryo’s viability, contributing to more informed decision-making.

Outcome-Based Core Models
Consists of a variety of deep learning algorithms

- Oocyte Age
  At time of retrieval

- Embryo Morphology Score
  At time of blastulation

- Morphokinetic Parameters
  From PN fading to blastulation

- Embryo Resilience
  Identifying substantial transients in the embryo’s development

- Segmentation
  Measuring embryo shape, size, structure and more

* AIVF Day-5 and AIVF Day-3 were trained and validated on known clinical pregnancy outcomes. AIVF Genetics was trained and validated on known PGT-A and live birth results.
Fully Automated Objective Embryo Evaluation

Our state-of-the-art AIVF Day-5 and AIVF Day-3 modules for embryo evaluation are designed to streamline workflows and enhance efficiency, efficacy, and quality of care.

The two modules are based on robust AI models that were trained on biological markers known to influence embryo viability and quality, and can identify morphological and morphokinetics features that are invisible to the human eye.

By automating these processes, EMA can:

- Enhance IVF laboratory efficiency while reducing workflow time\(^1\)
- Consistently assess embryo quality and developmental competency
- Increase safety, decrease human bias\(^2\)

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\(^1\) "Embryologist versus machine: Measuring efficiency with AI for embryo evaluation", Study was presented as oral presentation by A. Papatheodorou at IFFS conference 2023.

\(^2\) The bias is out of the bag: IVF culture dish well number influences embryo selection decision-making and implantation outcome\(^3\). An oral presentation by Prof. Daniel Seidman at ESHRE 2022 annual conference.
AIVF Genetics serves as a tool for predicting an embryo's genetic makeup in real-time and without subjecting the embryo to invasive procedures.

AIVF Genetics' outcome-based core AI model was trained and validated on known PGT-A and live birth results as ground truth. The model takes into account the visual quality, morphokinetics and ploidy probability for every embryo, as well as the oocyte age at time of retrieval.

Performance evaluations demonstrate robust model calibration, while the score is linearly associated with true prevalence of euploidy in the independent clinical data [A blind test set, N=708 embryos; euploid=352; aneuploid=356].

The scalar output ranges from 1-99, while the numbers represent the approximate probability of an embryo’s genetic integrity, categorizing them into four groups.

- **High likelihood of euploidy** (67-99)
- **Likely euploid** (50-66)
- **Likely aneuploid** (33-49)
- **High likelihood of aneuploid** (1-32)
Elevating Excellence

Reduce Time to Pregnancy
Using AIVF Day-5 reduces the number of cycles required to reach pregnancy by 27.5%³.

Increase Pregnancy Probability
An embryo with a high AIVF Day-5 score demonstrates a 70% probability for successful pregnancy².

"EMA by AIVF’s technology has increased our pregnancy rates per frozen transfer by up to 30%, increasing the probability of success for patients"

Dr. David Walsh, Gynecologist and Director of First IVF, Ireland

¹"Embryologist versus machine: Measuring efficiency with AI for embryo evaluation", Study was presented as oral presentation by A. Papatheodorou at IFFS conference 2023.

²AIVF – Performance overview white paper [data on file]. This representative study [N=18,700] evaluates how EMA’s AI embryo evaluation scores correlate with embryo quality, ploidy, and likelihood of achieving clinical pregnancy

³Data on file presenting ESHRE 2024 (Amsterdam, The Netherlands)
SCIENCE MADE WITH ❤
Use Data to Strengthen Care
Advanced IVF Analytics

Empower your team with data-driven insights to assist care decisions and improve general clinic operations while eliminating the need for manual data entry and calculations.

Aggregate all EMR data to perform deep mining, daily performance and trend analyses.

Benchmark and compare descriptive laboratory statistics, user performance metrics, and global laboratory KPIs for simplified laboratory analysis and QA/RA tracking.

Analyze fertilization, blastulation, and implantation rates stratified by different user-defined parameters. See statistics across your entire patient base, including pregnancy rates for a specific segment (age, BMI, number of previous cycles), as well as insights into general clinic operations.
Science is Our Foundation

As part of AIVF's mission to innovate excellent products, the company is committed to developing AI technology based on in-depth and continuous research.

The outcome-based AI models are built using a suite of deep learning algorithms that recognize complex patterns in time-lapse embryo images, which are invisible to the human eye. The models were developed based on a large and diverse database of hundreds of thousands embryo images in collaboration with leading healthcare institutions across the US, Europe, and Asia.
About Us

AIVF, a leader in reproductive technology, is dedicated to enhancing the efficiency of IVF clinics and laboratories through digital innovation. Leveraging the power of data, AIVF offers a unique suite of digital tools that bring clarity and insight to fertility care professionals and their patients.

The company’s offerings are specifically designed to address the growing needs of IVF clinics and laboratories in a time when the demand for IVF treatments is on the rise. At the heart of AIVF’s approach is an evidence-based core technology, shaped by practical clinical application, aimed at providing patients with a more streamlined, faster, and accessible journey towards parenthood.

Established in 2018, AIVF was founded by two renowned figures in the field of IVF: Prof. Daniel Seidman, a Reproductive Endocrinologist, and Daniella Gilboa, a Senior Embryologist, both bringing their extensive expertise to the forefront of fertility technology.

Want to see EMA in action?
Scan below to book a product demo:

Intended use: EMA is intended to assist embryologists to evaluate the embryo’s quality as well as the clinical pregnancy success rates for the embryo as part of the IVF treatment protocol for the patient.

CE Mark | ISO13485, ISO27001 and ISO 27799 compliant | HIPAA compliant | GDPR compliant.

CAUTION - An AI component of EMA, is considered in the U.S. an investigational device. Limited by Federal (or United States) law to investigational use.

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