



IVEFFICIENT
HELP MAKING LIFE (BETTER)

Preliminary testing

Hormone injections

39%

Egg retrieval

26%

Fertilization and Embryo development

21%

Embryo transfer

13%



Egg retrieval date optimization

Who are we?



**Ofer
Nissim**

- Computer Science
and Medicine



**Ofek
Gottlieb**

- Software engineer
atuda



**Maya
Zadok**

- Medicine



**Achinoam
Blau**

- Medicine



**Roy
Weber**

- Electrical
Engineering

The idea



Processing patient data using AI & ML



Yielding a recommendation



Validate and reassess

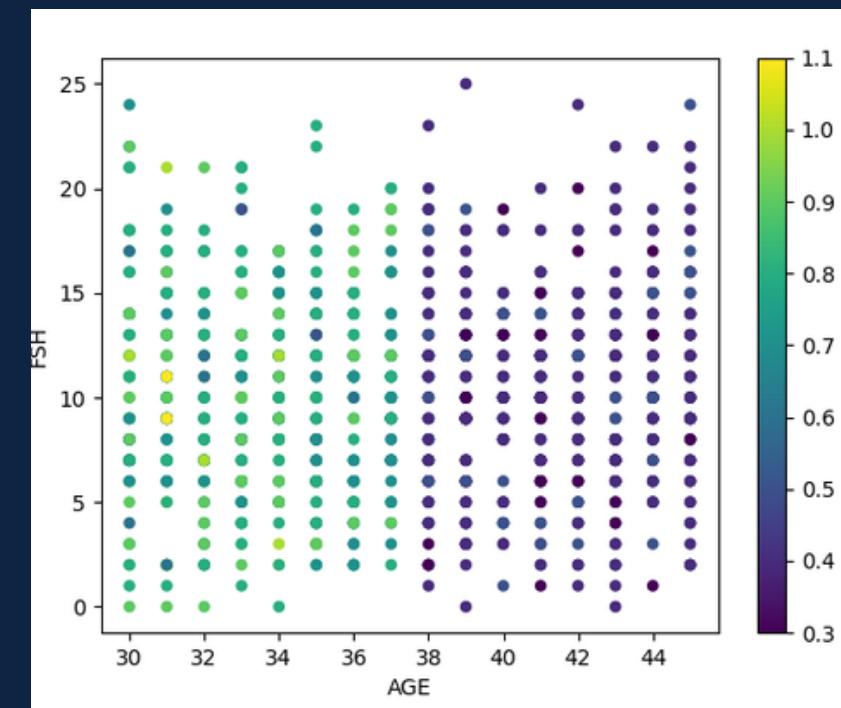
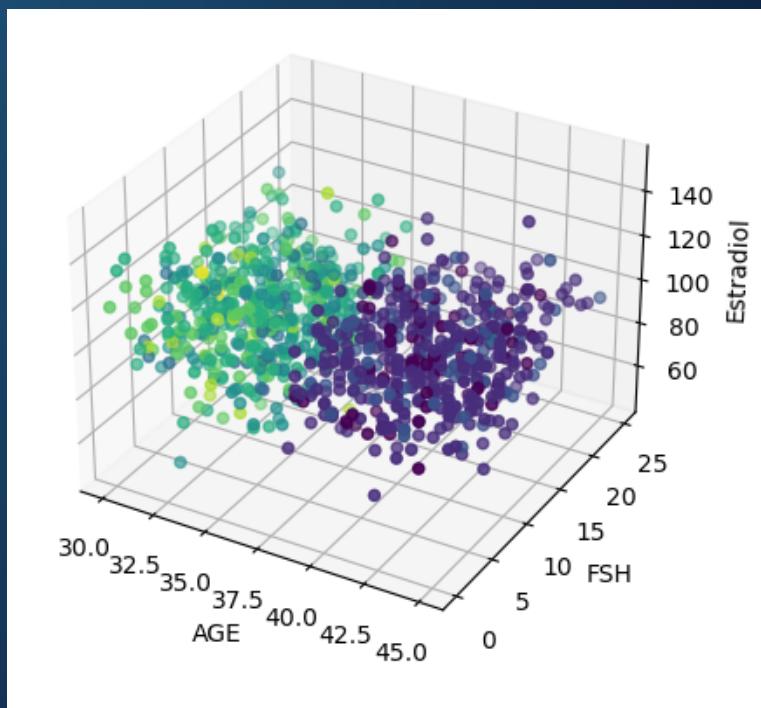
What did we do?

Literature review

Met with experts and patients

Generated data by known distributions

Plotted promising correlations



The product

JANE EYRE

AGE 37

BLOOD TYPE A-

FSH 14 mL

AMH 0.7 mL

IVF HISTORY

CAUSE OF INFERTILITY: IDIOPATHIC
PAST IVF ATTEMPTS: 3 FAILED ATTEMPTS
PAST PREGNANCIES: 2 SPONTANEOUS PREGNANCIES
OUTCOMES: 1 MISCARRIAGE, 1 LIVE BIRTH

BLOOD TEST

| Test item | Patient 1 | Patient 2 |
|----------------------------|-----------|-----------|
| Blood biochemistry | | |
| Total protein | 7.6 | 7.2 |
| Aspartate aminotransferase | 15 | 16 |
| Alanine aminotransferase | 10 | 20 |
| Lactate dehydrogenase | 295 | 153 |
| Na | 142 | 145 |
| K | 4.5 | 4.2 |
| Cl | 104 | 106 |
| Blood urea nitrogen | 12 | 8 |
| Creatinine | 0.76 | 0.58 |
| C-reactive protein | 0.06 | 0.17 |
| Complete blood counts | | |
| White blood cell count | 17.7 | 9.1 |
| Red blood cell count | 4.56 | 4.96 |
| Hemoglobin | 14 | 15.1 |
| Hematocrit | 41.9 | 44.6 |
| Platelets | 344 | 207 |

ULTRASOUND

WEIGHT 65 KG

HEIGHT 158 CM

BMI 26

day1 day2 day3 day4 day5 day6 day7

day1 day2 day3 day4 day5 day6 day7

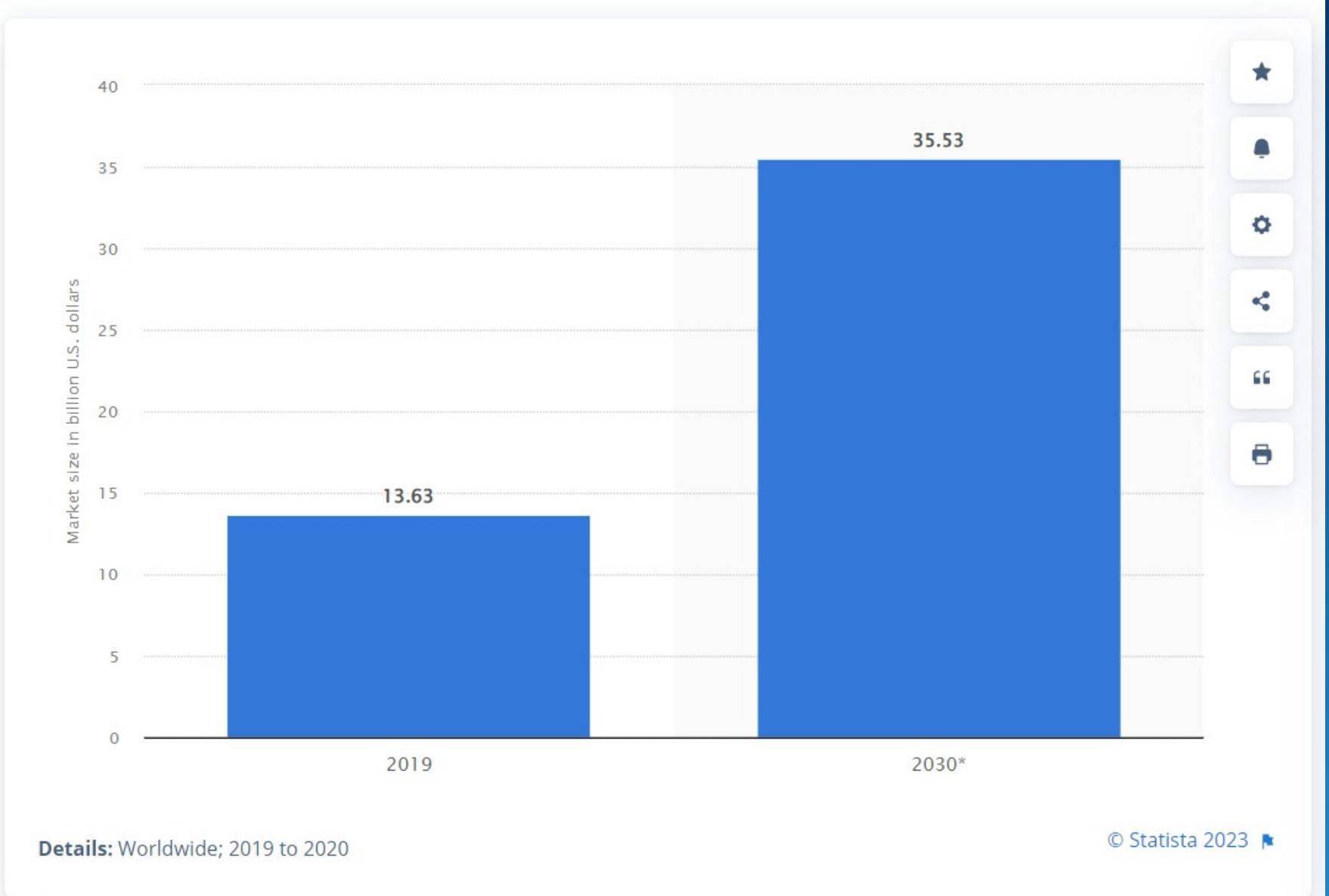
this is us!

Let's talk buisness

In Israel, in 2018 more than 48,000 treatment cycles were performed, a 40% increase compared to 2010

IVF market size in U.S. is expected to reach **5.5 billion \$**, a **600 million \$ raise** compared to 2020

Size of the IVF services market worldwide in 2019 and 2030
(in billion U.S. dollars)



What's going on in the market?

-  We found no other sufficient companies suggesting a solution to smart determination of OPU timing phase
-  Other companies suggesting AI-based fertilizing process tools, such as ALife & embryonic, raised 20+ million dollars in the first funding round

user

doctors



Decision aid tool to
optimize OPU and
save time.

beneficiaries

patients



Raising the chances to
have a baby ease the
mental and physical
burden on IVF
treatment
save money

What's next?

-  Purchasing data and improving our algorithm
-  Expanding our algorithm's ability and optimizing its timing resolution
-  Examining the significant factors and reconsidering their biological impact