

**New Saliva Based Diagnostic Technology for Early Pregnancy Detection (HCG Saliva based) (Yissum)**  
**code:** 6-2012-2728

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<b>Categories</b>	<b>Diagnostics, Fertility, Saliva</b>
<b>Development Stage</b>	<b>Ovulation: validation in females saliva, Pregnancy: kit optimization in reconstituted females saliva samples</b>
<b>Patent Status</b>	National Phase
<b>Market</b>	Women health – 8 billion US Dollars

## Highlights

- We are developing saliva-based fertility diagnostic kits for early detection of pregnancy as well as a kit for ovulation prediction, to serve as user-friendly alternatives for commercial urine/serum-based tests.
- Saliva is an ideal bio-fluid: sample collection is easy, inexpensive and non-invasive and it allows fast detection accompanied by a comfortable process and reduced user anxiety, hence it's suitable for home use.
- The group specializes in salivary research including salivary biomarkers discovery and saliva based lateral flow immunoassays (LFIS) development.
- Since saliva possesses inhibition characteristics that reduce the detectability of point of care (POC) technology, we developed a unique, proprietary technology that amplifies fertility hormones visualization and allows their detection in saliva in a self-manufactured LFIS. We aim at developing the first saliva based ovulation and pregnancy test kits.

## Our Innovation

Adapted LFIS which allows enhanced sensitivity detection of hCG and LH in saliva.

## Development Milestones

### Ovulation

- Pre-Clinical trials: daily monitoring and calibration of LH level in saliva of 20 women cycles, observed in self-manufactured LFIS and comparison to urine.

### Pregnancy

- Pre-Clinical trials: hCG detection in 20 saliva samples taken from early stage of pregnancy (7 days menstrual cycle delay).


## The Opportunity

- The women fertility market is estimated to be over 8 billion US Dollars.
- Current technology offers only blood/urine based diagnostic – there are no saliva based commercial kits.
- Current urine based Ovulation kits are not reliable and accurate enough
- Saliva based fertility test suggests more attractive, friendly, esthetical and comfortable

detection processes than the currently urine based test.

- The market size and the convenience which saliva-based test offer, prophesying its ability to takeover considerable segments of this huge market, hence being highly profitable.

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