

## MoleSense

# Shaping the Future of Female Health

#### In a nutshell

At MoleSense, our mission is rooted in empowering women through personalized care. We believe that every woman deserves healthcare tailored to her unique body, age, and life stage. It's about time to challenge the status quo, where technology has too often overlooked women's specific needs. Yes, medical research remained predominantly gender-neutral, ignoring the critical molecular insights required for truly personalized therapies. The realities women face—such as the difficulties of delayed pregnancies, the often-ignored issues of postpartum depression, the side effects of birth control, and the risks associated with hormone therapies—cannot be ignored. These challenges are often met with limited solutions, and we refuse to accept them. Therefore, we are pushing boundaries to ensure that women's health is no longer sidelined but prioritized with the care, innovation, and respect it deserves.

#### Why is our technology important?

At MoleSense, we are shaping the future of technologies for female healthcare with a bold vision for preventive medicine. We believe continuous molecular monitoring combined with continuous biophysical biomarkers tracking is the key to Healthcare 4.0. By combining user-specific molecular data with advanced machine intelligence, we are uncovering insights that will change early diagnostics and treatments—particularly for women facing maternity complications. From material synthesis and device fabrication to microfluidic and regenerative nucleic acid biosensing to their system-level integration with application-specific integrated circuits and biology-aware machine intelligence, our molecular wearables are powered exclusively by our patented technologies in EPFL.

### The benefits of our solution

By continuous, remote, and non-invasive monitoring of key maternity biomarkers, at MoleSense we aim to:

- Enhance clinical diagnosis.
- Improve fetal survival rates.
- Reduce maternal complications.
- Ease the economic burden of healthcare providers.
- Minimize patient stress and worries.

#### Keywords

FemTech; Female Health; Maternity; Molecular Wearables

#### **Founding Team**

Gian Luca Barbruni, PhD Ata Golparvar, PhD