



About Ontera

Ontera is democratizing precision diagnostics to create a more sustainable planet. By counting molecules that matter, we enable fast and precise identification of targets, diseases and resistances where and when needed. With the development of SAM and DUO Nano, our platforms are positioned to revolutionize molecular diagnostics.

- We fight the rise of super pests in plants, animals and humans by identifying pathogens and treatment resistance at the point of need.
- By bringing molecular precision to the field, we enable a more efficient and transparent supply chain.
- We are building tools to map the epigenome that will accelerate research and innovation in human health and agricultural technology.

At-A-Glance

Food Supply at Risk: New Innovation Needed

- Pathogen-induced crop loss is 10-40%
- \$17B GMO seed market; 1 new trait takes 11-16 years & \$360M+ investment

Transparency in the Food Chain

- Economic impact of food fraud: \$30-40B/year
- GMO / CRISPR verification

Diagnosis at Point of Care

- Access to fast, precise and cost-effective tools in the broad community needed to supplement current health system
- Retail pharmacies will become a focal point for that with 20K+ CLIA waived pharmacies with over 125 CLIA waived test
- In the US alone:
 - 8M undiagnosed with diabetes
 - 150K undiagnosed with HIV
 - 800K undiagnosed with HepC

At a Global Level

- Lack of established healthcare hospital system in much of the world
- Lack of skilled pathologists: 1 pathologist per 130,000 patients in China
- Need for cost effective, point of care solution
- 3M people with TB go undiagnosed
- Need for cost effective care

Ontera SAM

Our fully integrated, sample-to-answer (SAM) platform has broad applications across plants, animals and humans. SAM can interrogate up to 20 targets simultaneously, including nucleic acids, proteins and small molecules, all in the same assay.

Key AgTech solutions include trait identification (mutations, genetic modification, SNPs) and plant health (pathogen identification and treatment resistance susceptibility)

Key Human diagnostic applications include: infectious diseases, immunology, oncology

Ontera DUO Nano

Our dual-nanopore genome analysis platform, DUO Nano, maps many features on long DNA molecules, for quantitative localization of sequences and their modifications. The DUO Nano control technology enables interrogation of one molecule at a time, lending itself to key applications such as genome mapping, structural variation analysis and epigenetics.

Active Partnerships

BASF research collaboration to detect plant traits, diseases and disease resistance; Aug 2019

IARPA (Intelligence Advanced Research Projects Activity) contract for Zika Genotyping Test; \$982,593, June 2019

Bill and Melinda Gates Foundation grants to:

- develop sensitive, low-cost molecular diagnostic test for tuberculosis (TB); \$2.8M Oct 2018
- assess novel, low cost nucleic acid detection technologies for use in low resource settings; \$50K, Sept 2017

Bayer (Monsanto) collaboration on developing assays to detect certain biomolecules in crops, pests and pathogens; 2017

Patents Ontera holds 27 patent families, 43 issued patents, with 102 pending and 9 provisional filings

Fast Facts

- First employee: 2013
- Located: Santa Cruz, CA
- Employees: 80+
- Investors: Series A led by Khosla Ventures
- Leadership Team:
 - Murielle Thinard-McLane – CEO
 - William Dunbar, PhD – Co-Founder, CTO
 - Trevor Morin, PhD – CSO, Biochemistry
 - Andrea Chow, PhD – SVP, Engineering
 - Raparti Swayambhu – VP, Software
 - Mark Rose – VP, Product Management

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