

COMMERCIALIZE THIS!

Paper strips printed with office inkjet technology detect coliforms and *E. coli* quickly, cheaply, simply

HOW DOES IT WORK?

DNA molecules—which produce a signal when biomarkers for a specific disease are present—contained in bio-inks are printed onto paper using ordinary ink-jet printers. The paper is ready to use immediately. Within 30 minutes of testing, coloured letters and symbols appearing on the paper strips indicate the presence of contamination or infection in people, food or the environment.



WHY IS IT NOVEL?

Solves problems facing current paper-based biosensing techniques which are labour-intensive, sometimes costly and inconvenient, and often difficult to mass produce.

Can be extended to virtually any compound, be it a small molecule, bacterial cell or virus.

Is portable, so allows contamination to be detected more easily in the field in real time or patients to be diagnosed right in their physician's office.

WHAT PROBLEMS DOES IT SOLVE?

- Health hazards from contaminated swimming pools, drinking water and beaches
- Elevated bacteria counts during food processing
- Delayed diagnoses caused by multiple visits to health care professionals



WHAT PRODUCTS COULD IT MAKE?

- Water-testing kits
- Food-testing kits
- Verifiers for food preparation areas

WHAT INDUSTRY SECTORS MIGHT WANT TO USE IT?

- Food preparation and/or transformation sector
- Environmental protection authorities
- Organizations interested in overseas development
- Health authorities
- Rural municipalities
- Campgrounds and parks
- Swimming pool suppliers

