MBS SrI A DEVICE FOR FAST MICROBIOLOGICAL ANALYSIS OF FOOD AND WATER

MARKET SECTOR: Biotechnology

COMPANY DESCRIPTION Max 450 caratteri – spazi inclusi)

MBS srl (Micro Biological Survey): (Limited Liability Co.) is a recent spin-off of Roma Tre University, participated by the Roma Tre University itself, the researchers who set-up the method, an Italian small biotech firm and INVENT, a France seed-capital company.

PROJECT PROPOSAL(Max 600 caratteri – spazi inclusi)

The business idea is to produce and to commercialize an analytical kit patented by University Roma Tre which utilizes disposable, ready-to-use reaction vials for fast microbiological analyses of food and water samples. The analysis is based on the color change of the vial content that is induced by the presence of bacteria. The analyses can be carried out by untrained personnel and everywhere they are necessary, without the need of any other instrumentation but a thermostat provided on request.

INNOVATION AND ADVANTAGES (Max 900 caratteri – spazi inclusi)

No other competitor analytical method provides altogether these features:

- Fast: 2 to 5 fold faster than traditional analyses.
- Easy: The analyses can be carried out anywhere by anyone without the need of any other instrument. No sample homogenization is required before analysis and final sterilization allows to dicharge safely the used vials after analysis
- Sensitive: Down to the theoretical limit of just 1 viable microbial cell
- Selective: Up the experimental limit of 99.9% with respect to other bacterial species
- Low-cost: The overall cost of a single analysis is much lower than that of a traditional analysis carried out by skilled technicians operating in a fully equipped laboratory

Feasible quantitative analyses:

- 1. **Total viable bacterial cells**: markers of the overall bacterial contamination of drinkable water and food.
- 2. E. coli and coliforms: markers of faecal contamination of water and food.
- 3. **Other analyses**: *Staphylococcus aureus, Pseudomonas aeruginosa, Salmonella* spp., *Listeria* spp., Enterobacteriaceae, *Enterococcus faecalis*, Moulds and fungi

MARKET CHARACTERISTICS & OPPORTUNITIES (*Max 450 caratteri – spazi inclusi*) In Europe are carried out ~ 200.000.000 microbiological analyses/year in the agro-food and environmental market. Possible customers are: Agro-food industries: for the microbiological quality control of food and of food production processes. Laboratories: analysis for customers and for HACCP procedures. Civil protection: to avoid epidemic risks in the occasion of natural catastrophes. International cooperation: for the less-developed countries where the availability of microbiologically safe water is the main health priority

STATE OF DEVELOPMENT:

Commercialized in Italy.

INTELLECTUAL PROPERTY RIGHTS(*Max 150 caratteri – spazi inclusi*) Covered by patent

OPPORTUNITIES SOUGHT(*Max 150 caratteri – spazi inclusi*) Commercial agreement; direct investments.



MBS

MICRO BIOLOGICAL SURVEY

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