

PARTNERS

Public research institutions:



Universities:



Private research foundations:



SMEs and large companies:



FACTS & FIGURES

- Call identifier: H2020-LEIT-BIO-2015-1
- 13 partners from 6 European countries
- Project duration: 48 months
June 1, 2016 > May 31, 2020
- European Funding: € 8,808,363
- Project coordinator: Dr. Aurelio Hidalgo,
Universidad Autónoma de Madrid

For more information

MetaFluidics_EU



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MetaFluidics



MetaFluidics

Advanced toolbox
for rapid and cost-effective
**functional metagenomic
screening**

Microbiology meets microfluidics



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 685474



MetaFluidics:

A platform of innovative tools for functional metagenomics to analyze data, maximize functional expression and screening throughput, while reducing time and costs.

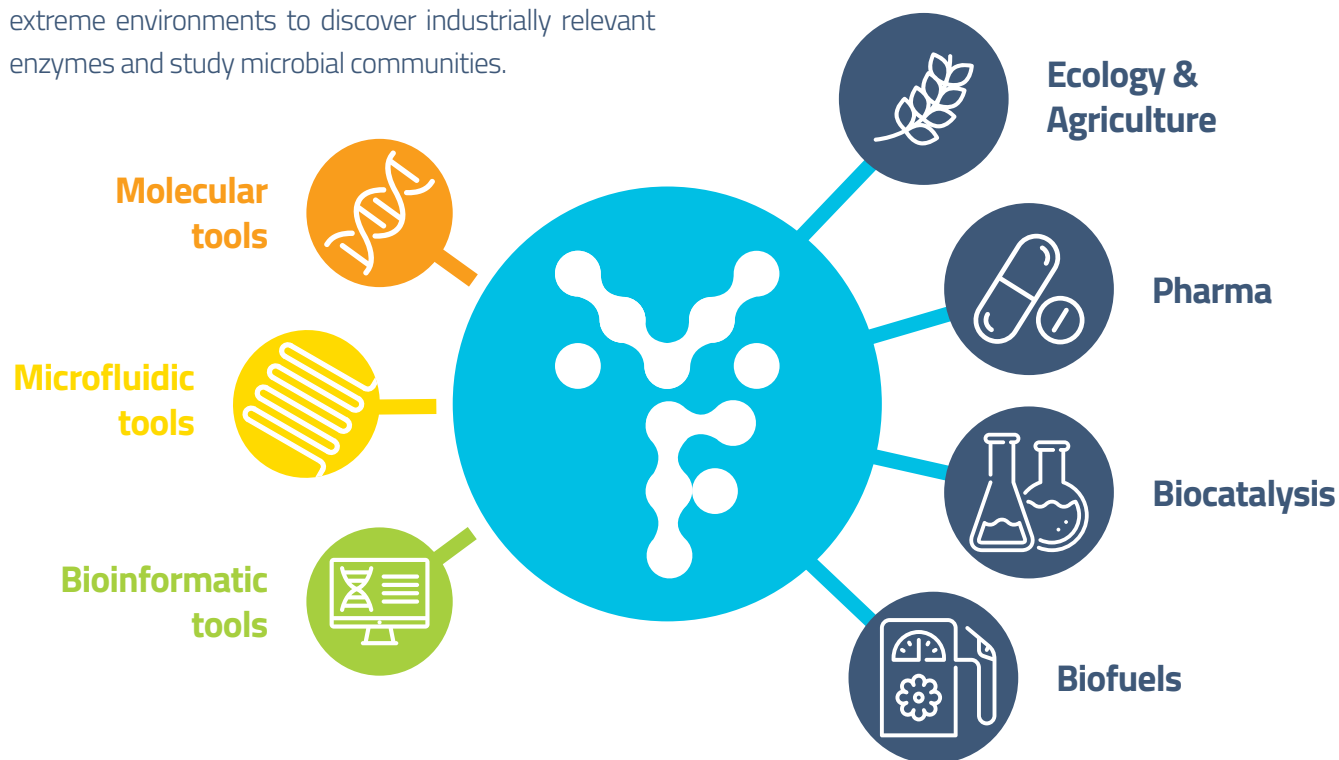
1000x
Faster & Cheaper

Thanks to new data analysis tools and new miniaturization technology (microdroplets), we screen metagenomic libraries 1000-fold faster and reduce costs by 1000-fold compared with conventional methods!

We expect to establish microfluidic droplets as the future standard for metagenomic library expression and screening.

A novel approach

MetaFluidics explores the microbial biodiversity from extreme environments to discover industrially relevant enzymes and study microbial communities.



The MetaFluidics Workflow

Step 1: Identification of market opportunities for enzymes, screening, and bioinformatic technologies to design an applicable MetaFluidics platform

Step 2: Environmental DNA sampling, enrichment and gene library construction using new molecular biology tools and a wide range of expression hosts

Step 3: Development of microfluidics-based methods to find candidate enzymes for industry

Step 4: Data analysis using new, user-friendly bioinformatics tools specifically designed for microbial metagenomics

Step 5: Candidate enzyme testing under industrially relevant conditions

Step 6: Plotting the best way to market for enzyme leads, technology and applications developed in the project