



HEALTHY BIOTECH?

Microbes as catalysts





HEALTHY PLANET BIOTECHNOLOGY MICROBES, DATA & COLLABORATION

- Growing pressures: climate change, food safety, AMR (antimicrobial resistance)
- Fragmented data: clinic vs. environment vs. food lack of a coherent picture
- Explosion of -omics data, AI, IoT but poor integration with industrial practice





IBPRS-PIB

YOUR PARTNER IN THE WORLD OF BIOTECHNOLOGY

- conducts basic and applied research
- cooperates with industrial partners
- agri-food biotechnology, safe production and storage of food, food and feed safety and quality
- **12** specialized Departments
- certified procedures
- SeCuRe microbial collection
- highly equiped labs





International cooperation:







EUROPEAN FOOD SAFETY AUTHORITY

Asociación Española de Normalización, UNE Madrit

Asaja Asociación Agraria de Jóvenes **Apricultores**

Consejo Superior de Investigaciones Cientificas (CSIC) Research Council

de Alicante .

Moredun Research institute

> · Stichting Wageningen Research

Freie Universität Berlin.

Jihočeska Univerzita v Českých Budiejovicích

Università degli Studi di Padova Uniwersytet Padewski

Europejski Urząd ds. Bezpieczeństwa Zywności

Council for Agricultural Research and Economics

Instytut Biotechnologii Przemysłu Rolno-Spożywczego lm. prof. Waciawa Dąbrowskiego-PiB

Szkola Główna Gospodarstwa Wiejskiego w Warszawie

Hungarian University of Agriculture and Life Sciences

National Food Chain Safety Office Budapest, Hungary

University. of Veterinary Medicine

> Atatork Centra nstinae

Uniwersytet Arystotelesa

INRAE

Universidade de Santiago de Compostela International lberian. Universidade. Nanotechnology de Vigo Laboratory

 Universidade do Porto

 Universidade Nova de Lisboa

The Spanish National

Universidad de La Laguna

> Universitat de Valencia

Universidade.







MICROBES AS CATALYSTS FROM FERMENTATION TO DATA

IBPRS Microbiology Today

Starter cultures, bacterial preparations, fruit belts, whey drinks, innovative fermentation lines

Projects on alternative proteins from plant, animal, and marine waste

New directions

Al + IoT for food safety and quality

Combining metagenomics and population genetics to create new microbiological solutions



GENE-TRACK INTEGRATED MICROBIOME INTELLIGENCE

Join us in Horizon Europe program!

Connecting the world of microorganisms with data – from the environment to humans

03

A single, shared workspace for science, business, and regulators

A new perspective on the spread of resistance throughout the food chain

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A foundation for future microbiome monitoring standards in a One Health framework



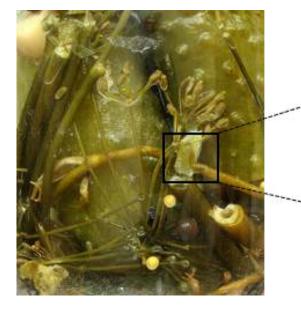


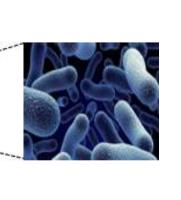
FROM VISION TO PRACTICE WHAT WE ALREADY DO













Horizon projects: WheatBiome, PromiSeang, NeoGiant, Ho-Food



Collection of Industrial Microbial Cultures - International Depository Authority



Infrastructure : Polish Roadmap for Research Infrastructure + MIRRI



Cooperation with regulators (EFSA, MRiRW) + industry





WHERE WE NED YOU COLLABORATION ZONES

- Data and samples laboratories, universities, clinical networks, control units
- Technologies SMEs in Al, bioinformatics, sensors, IoT
- Food and biotechnology industry pilot implementations, model validation
- Co-creation & application of biobanks and standards (MIRRI-ERIC, ELIXIR)





SUMMARY MICROBES IN IBPRS

- **♥** Collaboration in Horizon EU project: GENE TRACK
- ✓ Industrial application of strains from SeCuRe biobank
- New products: starter cultures, bacterial preparations, alternative protein technologies
- Analysis in certified laboratories
- Expert support: from idea to product biogas, bioethanol, biomethane, silage additives, animal by-products





THANK YOU FOR YOUR ATTENTION

Together, we can create a more healthy future with microbes as catalysators.

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