AT A GLANCE

TITLE:
ZeEBRA Project

CONSORTIUM:
3 partners

COORDINATOR:
University of Malta

DURATION:
01 December 2021- 31 November 2024

NATIONAL CONTRIBUTION:
€ 288,186

ABTG'S SHARE:
€ 69,304

ZeEBRA

Zebrafish to enable high-throughout screening of small molecules in Bone Disease & Research Analysis

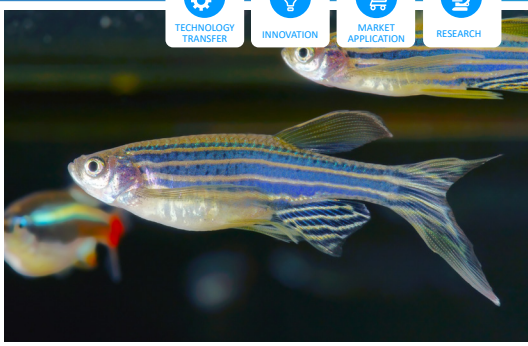
ZeEBRA PARTNERS

1. University of Malta (Lead), Malta
2. AquaBioTech Group, Malta
3. Radboud University, The Netherlands

This project has received funding from The Malta Council for Science and Technology under grant agreement R&I-2019-018T, FUSION: Technology Development Program.

Xjenza The Malta Council for Science & Technology

TECHNOLOGY TRANSFER | INNOVATION | MARKET APPLICATION | RESEARCH



ZeEBRA Project

Osteoporosis, the most common type of bone disorder, with a high fracture incidence, affects more than 200 million people worldwide. Effective treatment- that successfully restores bone integrity without concomitantly inflicting undesirable side-effects- is limited, creating the need for identifying improved therapy using simple, fast, and robust assays to reduce the osteoporosis treatment gap. The ZeEBRA project will use zebrafish as an improved and robust model for high-throughput screening of small molecules to identify new drug candidates for treating bone disorders. This will help achieve an active ageing population, promote healthy living, and boost economic growth . The project will be a collaborative effort between researchers from the University of Malta (Lead Partner), AquaBioTech Limited (Project Partner) and Radboud University, Nijmegen, The Netherlands.

- Model Species for high-throughput screening of drug candidates
- Husbandry and welfare of *Danio rerio* (Zebrafish)
- Environmental toxicology for effluent and compound screening

Objectives of ZeEBRA

- Design and setup of zebrafish housing system at ABT Innovia.
- Successful high welfare program for the husbandry of zebrafish and the established supply of larvae and scales for compound testing in Malta.
- Testing of compounds in zebrafish larvae, macroscopic evaluation of drug toxicity in zebrafish larvae after drug exposure, behaviour analysis of drug toxicity in zebrafish larvae, testing of compounds in zebrafish scales, identification of optimal time points and compound doses for testing.
- Identification of potentially active compounds for bone diseases using model species zebrafish.

AT A GLANCE

TYPE:
Research SME

LOCATION:
Mosta, MALTA G. C.

CAPABILITIES:
R&D / Consultancy / Engineering

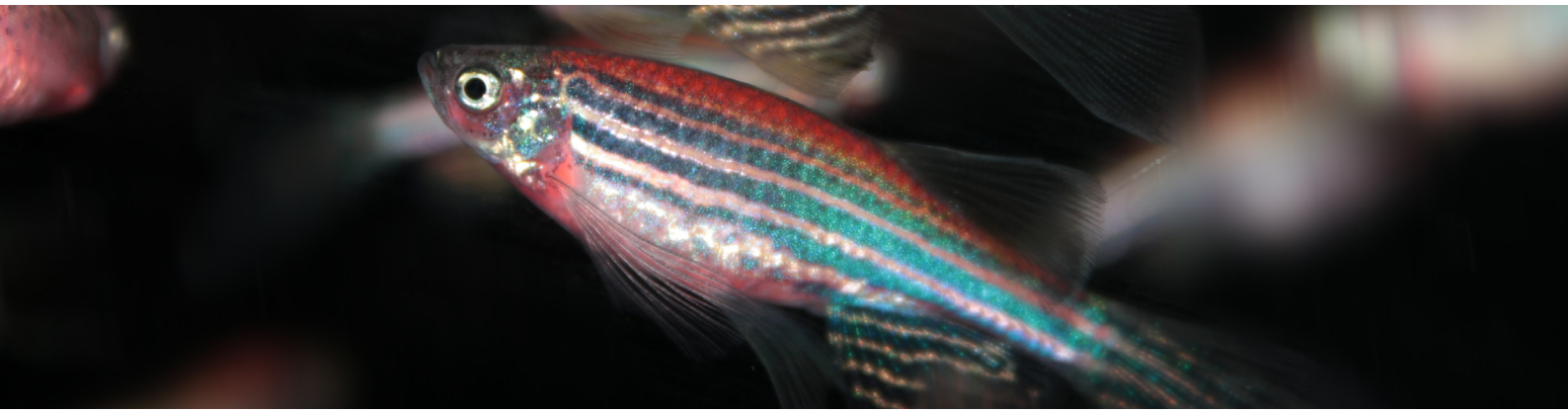
EXPERTISE:
Aquaculture / Marine Research
Blue Growth / Aquatic Environment

AquaBioTech Group

Who We Are

AquaBioTech Group is an international consulting, engineering and R&D company with over 20 years of experience in aquaculture, fisheries and other aquatic sciences. Located in the center of the Mediterranean on the island of Malta, although operating globally with clients and projects in over fifty-five countries.

The vast majority of the organisation's work is related to the marine or aquatic environment, encompassing aquaculture developments, market research/intelligence through project feasibility assessments, finance acquisition, project management, technology sourcing, technical support and training.

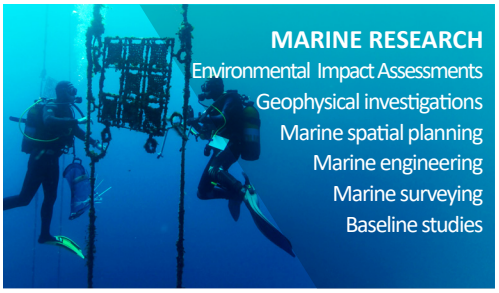


Our Role in the ZeEBRA Project

AquaBioTech Groups' tasks within the ZeEBRA project include:

- Design, engineering, instalation and set up of the fully licenced zebrafish husbandry facility at ABT Innovia
- Coordinate the regular supply of larvae (<5 days post fertilization) and scales for pre-clinical research in accordance with animal welfare regulations through quality animal husbandry procedures.
- Conduct high-throughput screening of compounds using novel and established methodologies using Zebrafish as a model organism.

Our Research Activities



AquaBioTech Group

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