

FROM MAGNETOTACTIC BACTERIA TO MICROBOTS

Technology Overview

- Aquatic/ Microaerophilic organisms
- Movement by flagella
- Formation of intracellular magnetosomes (organelle for magnetotaxis)

Core Technologies

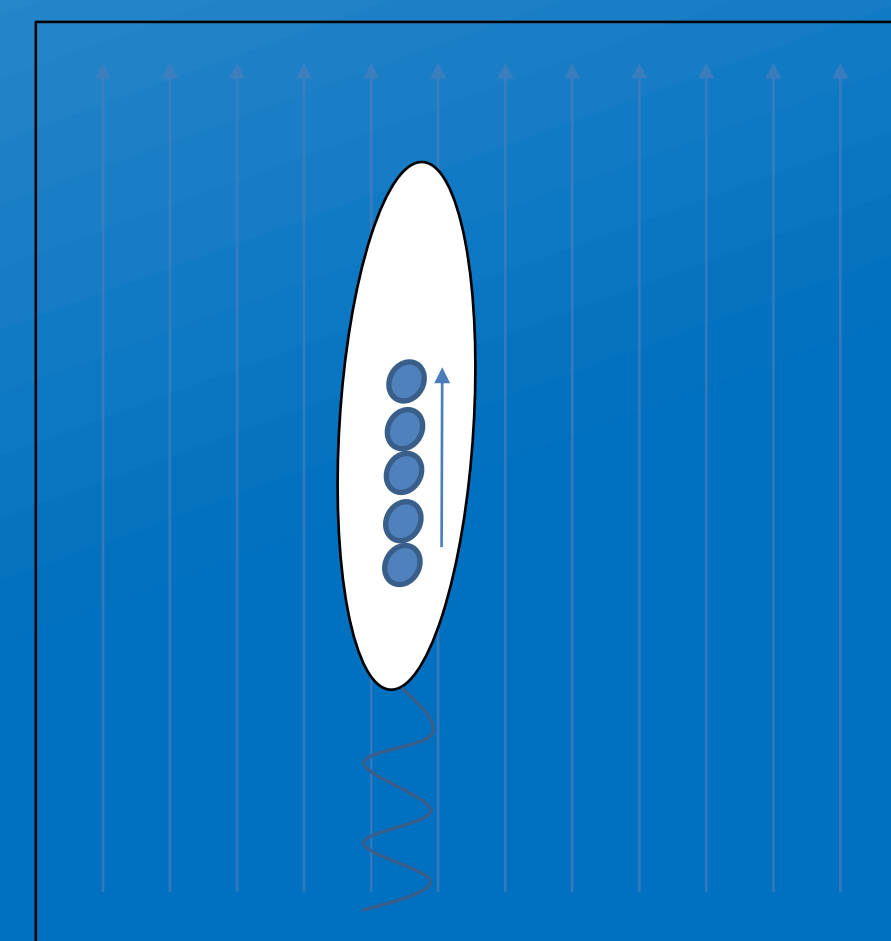
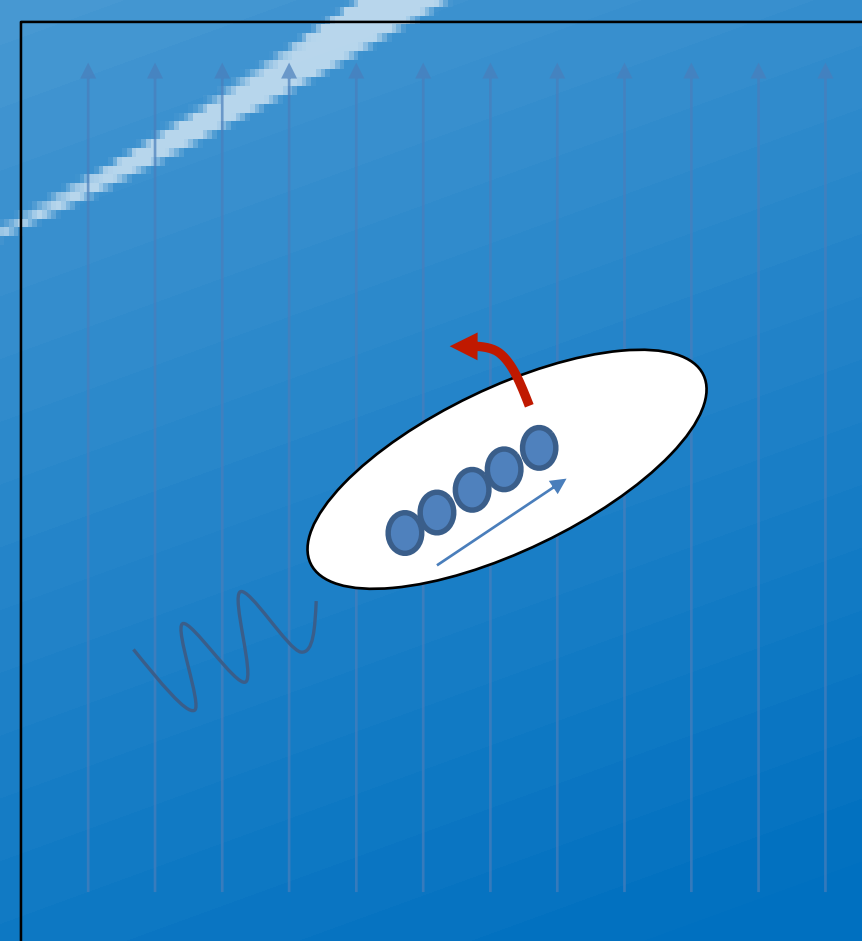
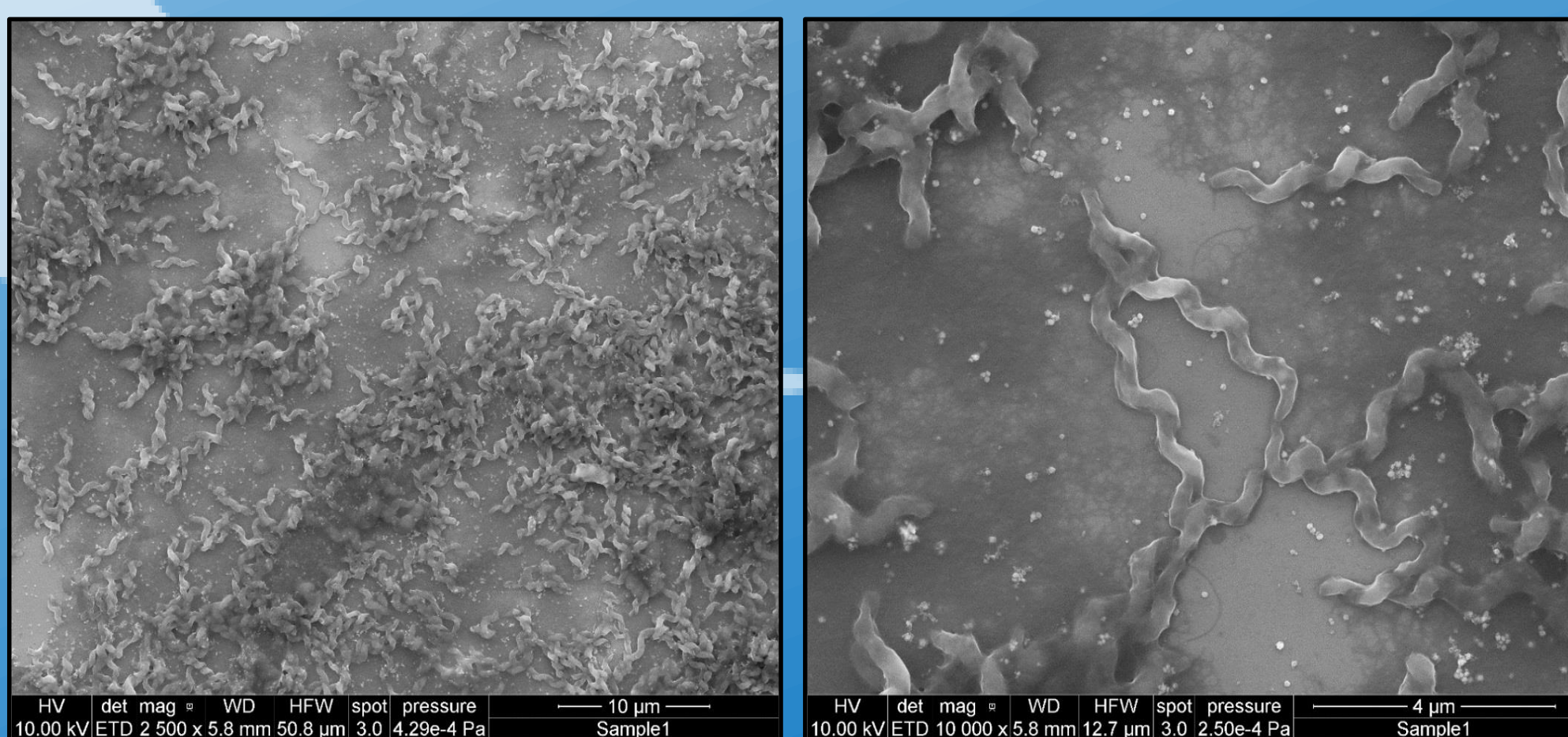
- Oriented movement of an organism in a magnetic field.
- Magnetosomes act as a compass needle for orientation of magnetotactic bacteria in geomagnetic fields.

Application Area and Advantages

- Small (micro size)
- Self-propelled (forces and move over large distance)
- Controllable
- Self-producing
- Modification of reactions to external signals based on the DNA programming

Accomplishments

- Paper will be submitted
- Preparing patent
- We would like to make a collaboration with biology company.



Magnetospirillum magnetotacticum
- SEM image -