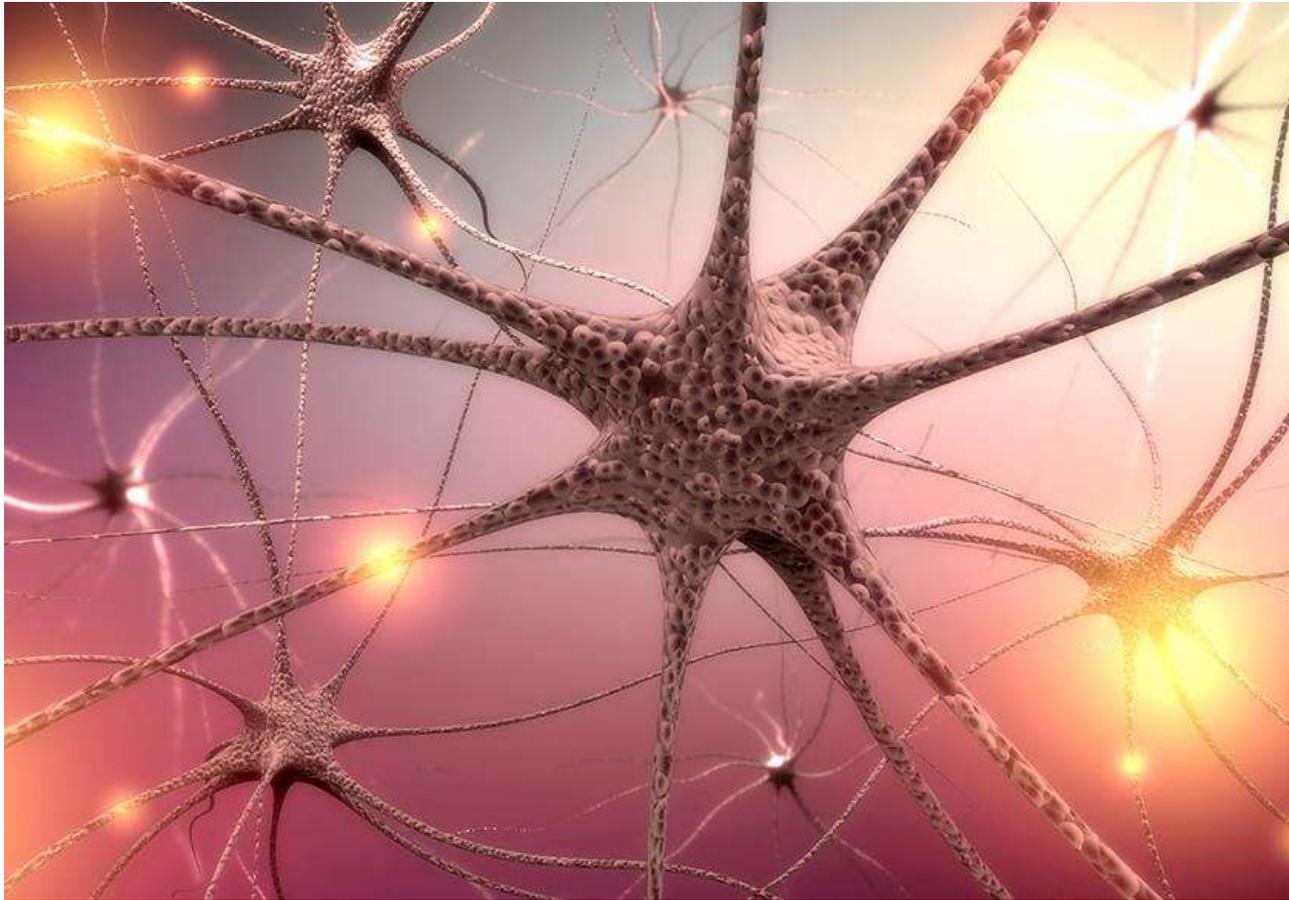


DEPARTMENT

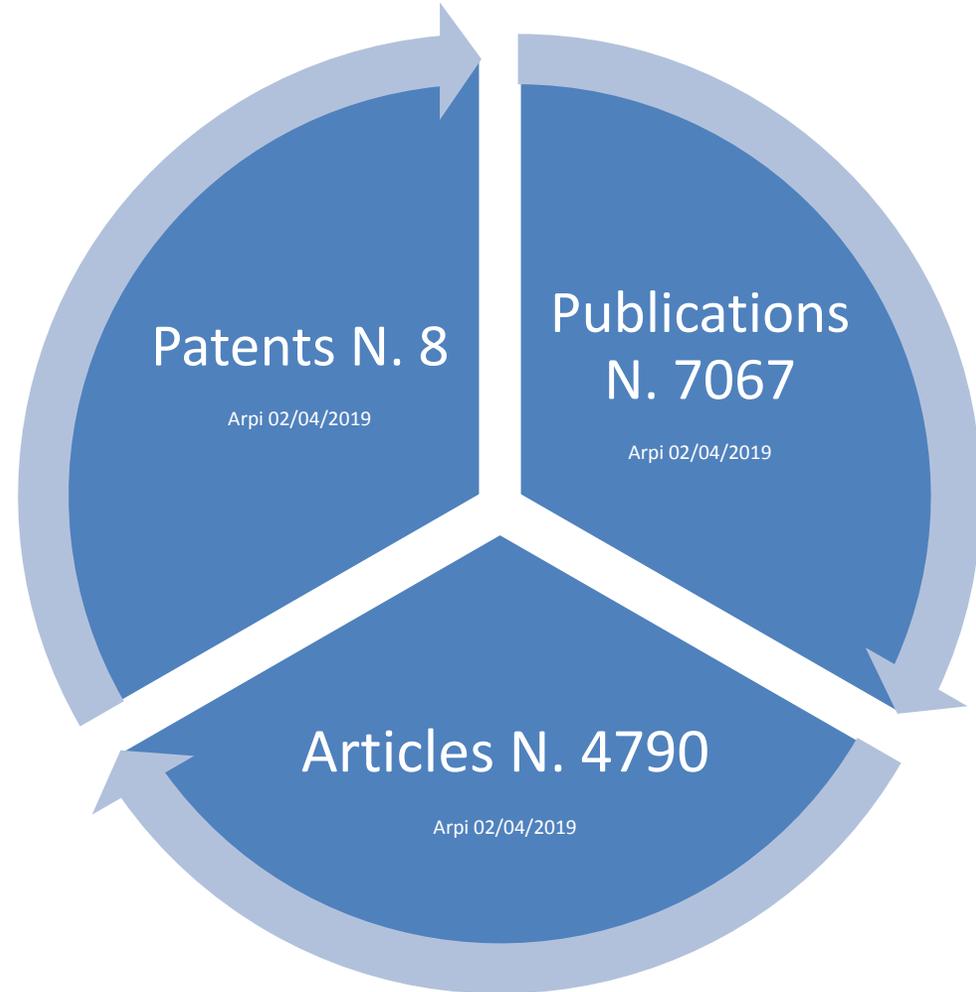
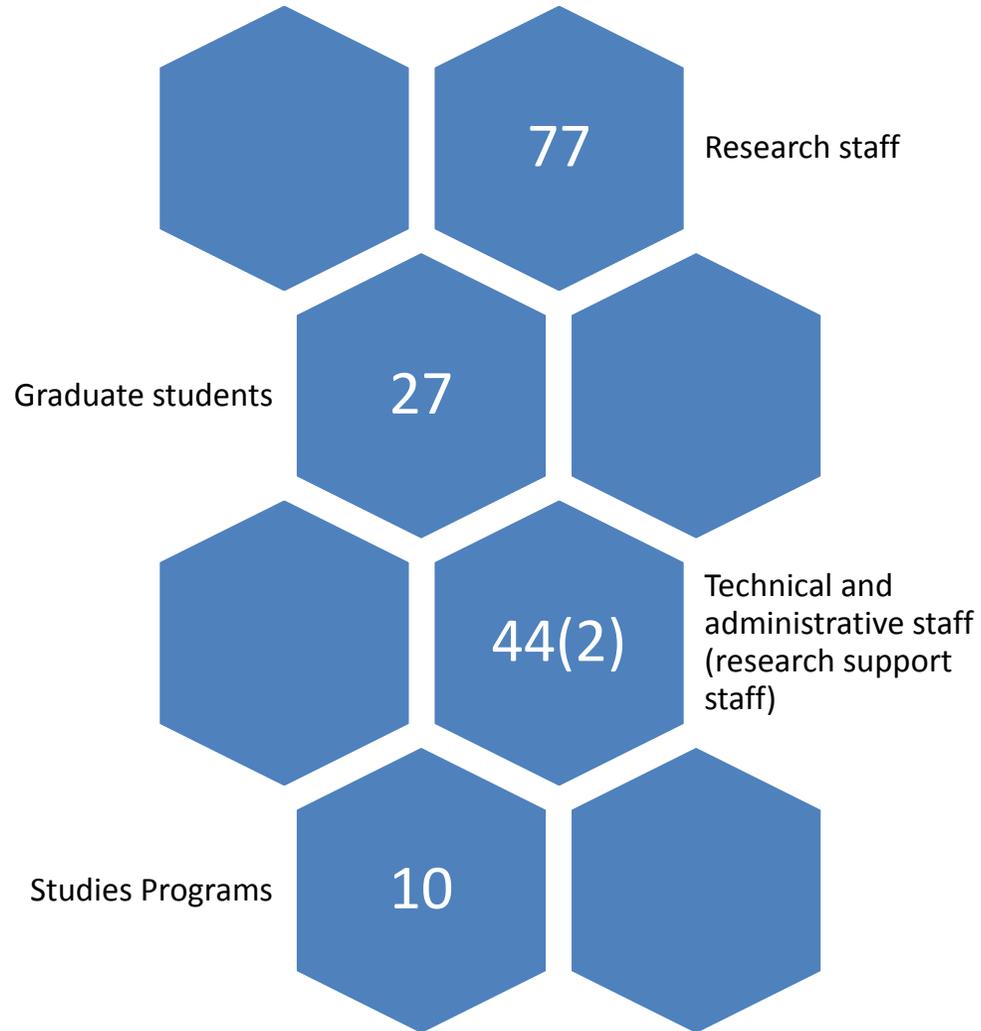
BIOLOGY



UNDERSTANDING NATURE
TO IMPROVE HUMAN'S
WELLBEING



DEPARTMENT AT A GLANCE



RESEARCH AREAS

Biodiversity
ecology and
evolution

Biodiversity from prokaryotes to eukaryotes and their interaction with the environment: **global change biology, conservation, animal behavior**

Cellular and
molecular
biology

Molecular and cellular interactions, signaling, metabolic pathways, genomic and developmental regulation: **enzymes structure/function correlation, gene editing, “omics”**

Applied
biology and
Biotech

From fundamental biological processes to technological innovation: **bioremediation, biomedicine, environmental sustainability, nanotechnologies, functional food, public health**

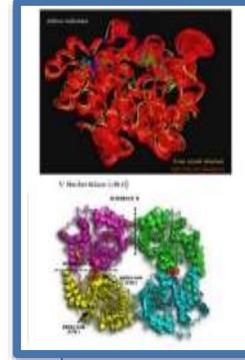


RESEARCH PROJECTS



Biodiversity ecology and evolution

- VECTORS FP7 - CP
- MendTheGap H2020 - Twining
- CINAR pathobacter FP7 – IRSES
- MONITO.RARE – (RT)
- NatNeT – (RT)



Cellular and molecular biology

- Molecular bases of autism (IIT, SFARI, Telethon)
- Cellular mechanisms of Microcephaly (Brain and Behavior Research Foundation)
- DNA repair and colorectal cancer (Ist. Tosc. Tumori)
- Diatec-Meso (Fond Pisa)
- AIRC, Investigator Grant 2019.
- Idara - Rasupea (RT - nutraceutica)



Applied biology and Biotech

- BIOSUR (Life11) - MAPEC (Life12) - AIS (Life12)
- PHA (POR-RT) - Bioresnova (Fond. Pisa)
- Carbala (FP7 - IRSES) - Wings for life (USA)
- β AR antagonism and biased agonism in the control of pathological neovascularisation (Min. Salute)
- “Eterna” (Fond. Pisa)
- COST Action 929: European Network for Environmental and Food Virology

RESEARCH IMPACT



Scientific publications in top journals

- Nature, Nature Genetics, Nature communications, Science, PNAS, eLife, PLOS Biology, Current Biology, Cell



Translational applications

- Patent and clinical trials



Decision making

- Support to National and European policies for environmental conservation and management

