

## Reproductive and genetic procedures for preserving fish biodiversity and aquaculture

<b>Project name</b>	<b>Reproductive and genetic procedures for preserving fish biodiversity and aquaculture</b>
<b>Registration number</b>	CZ.02.1.01/0.0/0.0/16_025/0007370
<b>Realization date</b>	4/2018 – 3/2022
<b>Recipient</b>	University of South Bohemia in České Budějovice
<b>Grant program</b>	OP - EU Operational Programme
<b>Responsible solver</b>	prof. Ing. Martin Flajšhans, Dr.rer.agr.

### PROJECT ANNOTATION

The objective of the research plan is to ensure sustainability and development of excellence of the research and transfer of knowledge in the spheres of fish genetics, reproductive physiology and biotechnology of their germline stem cells into practice in order to sustain fish biodiversity, establish an internationally acknowledged gene banks and improve competitiveness of the European aquaculture with a significant share of the Czech Republic.

### PROJECT GOALS

The project's vision is to preserve biodiversity and develop competitive freshwater aquaculture using a multidisciplinary approach based on the synthesis of knowledge of existing research directions set at the individual workplaces of the center. Based on the synthesis, five areas of excellent research of reproductive and genetic practices have been identified, which we consider key to maintaining fish biodiversity and developing Czech and European aquaculture with significant potential for exploiting results and subsequently establishing and strengthening cooperation with the application sphere. They are a comprehensive study of fish gametes and their interactions in the fertilization process; research into disorders of gametogenesis, the biology of such resulting polyploid organisms and optimization of reproductive biotechnology; development and optimization of techniques and protocols for the international genebank of living organisms, their gametes, and DNA; germline stem cell bioengineering and application of molecular biology principles in fish breeding. The FFPW USB team belongs to the world's priority scientific groups in the development of bioengineering of sturgeon germ stem cells that we want to develop further and develop methods of GSC transmission with application to endangered or economically important species. The project has significant potential for subsequent development and application of results supported by the pre-application research phase. It assumes that follow-up activities can be implemented within the project funded by the follow-up synergy called OP PIK (PO 1, SC 1.2.).



### PROJECT BUDGET

	Amount CZK	Percentage (in%)
<b>Total budget</b>	46 236 526,40 CZK	100
<b>The amount of the grant</b>	39 301 047,44 CZK	85
<b>The amount of public funding</b>	4 623 652,64 CZK	10
<b>Own co-financing</b>	2 311 826,32 CZK	5

### CONTACT



prof. Ing. Martin Flajšhans, Dr.rer.agr. /**Responsible solver**

Phone. +420 38777 4608, mob. +420 724 233 542, E-mail: flajsh@frov.jcu.cz