

#### **Collection of Industrial Microbial Cultures**

## Center of Microbiological Resources (KKP)

Do IBPRS należy Centrum Zasobów Mikrobiologicznych - Kolekcja Kultur Drobnoustrojów Przemysłowych (KKP).

## Jest to największa tego typu instytucja w Polsce.

**KKP** gromadzi szczepy drobnoustrojów przemysłowych wyizolowanych z żywności oraz środowiska jej produkcji.

Zasoby Kolekcji obejmują około **3000 szczepów** drożdży (m.in. **piekarskich, gorzelniczych, winiarskich, piwowarskich, paszowych**), bakterii (m.in. **fermentacji mlekowej, octowej czy dekstranotwórczych**) oraz **grzybów strzepkowych.** 

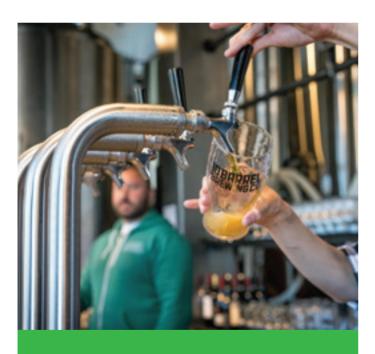


#### **USE OF RESOURCES**

#### Our goals

The microorganisms stored by the collection can serve as starter cultures for the production of wines and meads. They can also be used in the production of sourdough for bread, various types of silage, feed or biofuels. Identified and characterized microorganisms are made available by the Collection, in the form of pure cultures, to industrial plants and universities throughout Poland.





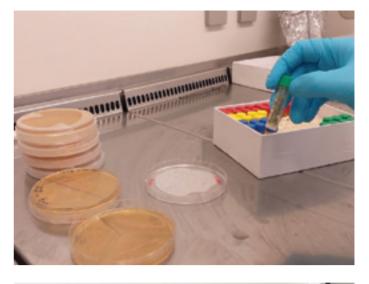
Bacteria, yeast and filamentous fungi, as part of the work carried out in the Collection, are isolated from various environments, both natural and industrial.

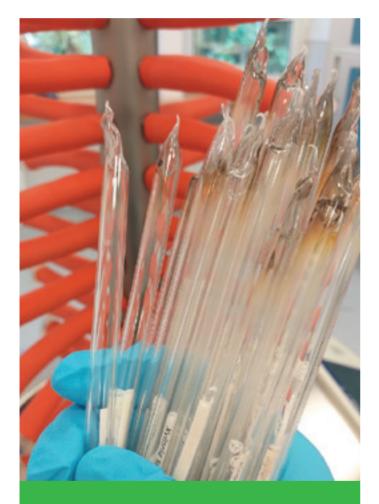


# STORAGE OF MICROORGANISMS

#### Identifying and collecting

After identification and initial characterization of the microorganism, we collect and store them in a state that ensures physiological, biotechnological and genetic stability.



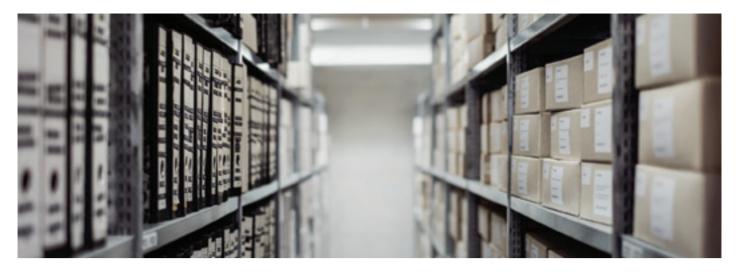


The main stage of work is the identification of microorganisms carried out by classical methods using appropriate multiplication and selective media.

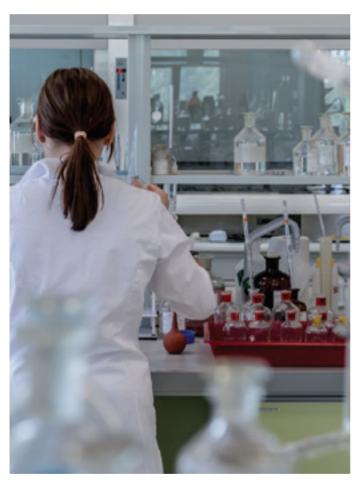


Storage of such various groups of microorganisms as those included in the IBPRS Collection requires selection of such storage methods that guarantee high survival while maintaining genetic stability and stability of biotechnological characteristics of the strains.

For reasons of strain safety, they should be stored in several parallel forms. Microorganisms are stored in the collection in a freeze-dried state, deep-frozen at -80 degrees C, or in liquid nitrogen vapors at a temperature of up to -195 degrees C.



#### STRAIN SHARING AND COLLECTION BASE



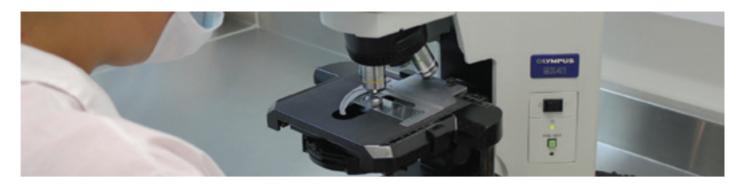
We conduct selective work on improving the usable features of selected industrial strains.

The collection resources currently numbering several thousand strains are constantly expanded to meet the needs of industry, mainly in projects with small and medium-sized Polish enterprises. Increasing the collection resources is also caused by the use of appropriate, qualified strains of microorganisms in scientific and research works.

#### Attention!

Online strain database available in KKP is only an Illustrative version of the Collection Catalog and does not contain all KKP collections. We try to update our online catalog on a regular basis, but if you do not find selected strains in it, please contact the IBPRS Microbiology Department by email or phone.

Existing since 1950, the IBPRS
Collection of Industrial Microorganisms Cultures, due to its scope and number of stored strains, is the only unique place of this type in Poland.



#### PATENT DEPOSIT

KKP has the status of an International Deposit Authority on the recognition of a deposit for the purposes of patent procedures under the terms of the Budapest Treaty granted in 2000 by the World Intellectual Property Organization.

KKP guarantees the storage of deposited microorganisms in a way that ensures their physiological, genetic and biochemical invariance. Patent deposits are held in accordance with the requirements of the Budapest Treaty and WFCC Good Practice (http://www.wfcc.info/guidelines/).

# KKP DEPOSIT patent patent deposit bezpieczny depozyt do celów patentowych



#### Deposit confidentiality

Patent deposits are not made available in the publicly available KKP catalog.

Information on patent deposits is covered by patent secrecy in accordance with the principles of the Budapest Treaty.

Microorganisms deposited as part of the patent deposit at KKP are stored for at least 30 years from the date of deposit.

The types and amounts of fees are specified in the price list [PDF to download]. Other downloads:

- Order form
- BP1
- Deposit regulations





#### SECURE DEPOSIT

Please be advised that KKP accepts only microorganisms belonging to risk groups 1 or 2 in accordance with Directive 2000/54 / EC of the European Parliament and of the Council of 18 September 2000 on the protection of employees from the risks related to exposure to biological agents at the place of work (seventh individual directive within the meaning of Article 16 (1) of Directive 89/391 / EEC).

#### What is a secure deposit?

The collection offers a special long-term storage service of microorganisms under the so-called secure deposit. Microorganisms placed in a secure deposit will not be passed on to third parties or made public.



**FORMULARZ ZGŁOSZENIA** DO POBRANIA NA STRONIE https://www.ibprs.pl/kkp/



#### KKP INTERNATIONAL COOPERATION

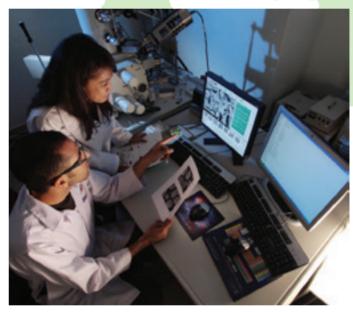
The collection is a member of several European and world organizations associating institutions with a similar profile of activity



KKP is a member of, among others:

- National Biodiversity Information Network related to the Global Biodiversity Information Facility
- World Data Center for Microorganisms as IAFB 212 (Institute of Agricultural and Food Biotechnology)
- the European Culture Collections Organization (ECCO).





#### **MIRRI**

The MIRRI consortium aims to integrate existing public collections of microorganism cultures. Its activities include the creation of a pan-European research infrastructure, harmonization and standardization of procedures used in culture collections and the creation of a coordinated offer addressed to scientific and industrial environments.

In addition, the Industrial Microbial Cultures Collection participates in the project. MIRRI (Microbial Resource Research Infrastructure (<a href="https://www.mirri.org/">https://www.mirri.org/</a>) entered into the European Strategic Forum of Research Infrastructures ESFRI, which brings together collections of 19 countries.

KKP as a member of the MIRRI consortium, is the beneficiary of the project with the acronym IS\_MIRRI21 (EU project 871129) Implementation and Sustainability of microbial resource research infrastructure for 21st century. (Implementation and sustainable development of research infrastructure of microbiological resources in the 21st century.)

The IS\_MIRRI21 project was submitted on 20-03-2019 upon call for competition ID H2020-INFRADEV-2018-2020 as part of the European Union research program

#### **HORIZON 2020 - Excellent Science.**

The funds allocated amount to nearly EUR 5 million and have been granted for 3 years.

14 beneficiaries participate in the project.

### Membership in international organizations

KKP also belongs to international organizations such as:

- WIPO World Intellectual Property Organization
- WFCC World Federation for Culture Collections (http://www.wfcc.info/).

Since December 2000, the IBPRS Collection has the status of an International Depository Authority (one of 20 in the world) on the international recognition of deposits for the purposes of patent procedure, awarded by the World Intellectual Property Organization

 OECD - Organization for Economic Cooperation and Development (https://www.oecd.org/)
 The Collection of Industrial Microbial Cultures acts as a contact point, disseminating in Poland the standards adopted by the European scientific community in terms of conducting collections. Kolekcja Kultur Drobnoustrojów Przemysłowych pełni rolę punktu kontaktowego, upowszechniając w Polsce standardy przyjęte przez naukową społeczność europejską w zakresie prowadzenia kolekcji.



World Federation for Culture Collections
is an international body created under the auspices
of the International Union of Biological Sciences
and the Federation within the framework of the
International Union of Microbiological Societies.
The WFCC acts as an exchange point for information
on microbiological sample sets. Supports
the development, maintenance and creation
of a culture collection.





