

**Portuguese Yeast Culture Collection  
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(PYCC)**

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**Policy Statement**

PYCC was founded in 1952 by Prof. Nicolau van Uden and was housed successively in the Faculty of Sciences of the University of Lisbon (FCUL) and in the Gulbenkian Institute of Science (IGC). Upon the transfer of PYCC to FCT/UNL in 1996 the collection was headed by Prof. Isabel Spencer-Martins until 2008. The collection will have their former coordinators names associated to the collection: “Colecção Portuguesa de Culturas de Leveduras Nicolau van Uden & Isabel Spencer Martins”, retaining the acronym PYCC (Portuguese Yeast Culture Collection). PYCC is a biological infrastructure associated with CREM since the establishment of this R&D Centre in 1998 and is located in the premises of the Department of Life Sciences (DCV) at FCT/UNL. Currently, PYCC maintains approximately 2500 yeasts strains, many of them isolated and characterized by national researchers who worked in the institutions where the collection was based. PYCC is affiliated with two international culture collection organizations: ECCO (European Culture Collection Organization) and WFCC (World Federation of Culture Collection).

**Article 1 - PYCC Mission Statement**

The main duties of PYCC are: (i) to receive, preserve and supply certified yeast cultures, for academic (teaching or research) or commercial (research or industry) purposes; (ii) to safeguard and transmit knowledge on identification, classification, maintenance and ecology of yeasts by PYCC staff; (iii) to support research activities of CREM (DCV, FCT/UNL).

**Article 2 - PYCC Activities and objectives**

1. Main activities:
  - a) Preservation of pure yeast cultures;
  - b) Storage and supply of yeast cultures (for academic or commercial purposes);
  - c) Identification and characterization (morphological, physiological, molecular) of the preserved cultures;
  - d) Cataloguing of available information on the cultures in a dedicated database;
  - e) Making available the information on PYCC cultures through appropriate means, namely by setting up a website and online catalogue.
  
2. Mid to long-term objectives:
  - a) To provide yeast identification services;
  - b) To carry out training and/or R&D activities in the areas of yeast systematics, ecology and maintenance;
  - c) Certification of PYCC in accordance with international guidelines issued by international culture collection organizations;
  - d) Integration or association with a national biological resource centre.

### **Article 3 - PYCC Management**

1. PYCC staff will consist of a Coordinator, a Curator and a Technician.
2. PYCC management and related activities will be carried out by the Curator and by the Technician under the supervision of the Coordinator.
3. The duties of the Coordinator, Curator and Technician are specified in the present Policy Statement (clause 5 of Article 4).
4. The Coordinator is a CREM member with a PhD, designated by the Scientific Council of CREM, who will be responsible for PYCC management until a Curator is hired or in his absence.
5. The Curator is a PhD holder whose salary will be paid for by national or international institutions outside FCT/UNL.
6. The Technician will have a bachelor's degree ("licenciatura") hired for this purpose by FCT/UNL, under CREM proposal.
7. PYCC management will be supervised by The Steering Committee, whose assignments are defined in clause 8 of Article 4.
8. The Coordinator may invite an international expert on culture collections as a Consultant.
9. FCT/UNL in conjunction with the Steering Committee should ensure the physical continuity and safety of PYCC, but it shall not be liable for loss or damage arising from causes beyond the control of FCT/UNL or resulting from the breach of rules laid down in this Policy Statement.

### **Article 4 - PYCC Functioning and Procedures**

1. Deposit of cultures
  - a) The deposit of cultures in PYCC may result from requests to other culture collections, donation of strains that result from work of members of CREM or researchers from other national or foreign R&D institutions, or requests for storage of commercial strains (subject to special conditions – see item d). A unique serial number preceded by PYCC acronym will be assigned to each new culture.
  - b) New yeast strains may be deposited and maintained in PYCC as long as they are considered important for the collection, according to the criteria set by the Coordinator. There are key requirements for the deposit of strains: the trustworthiness of the donor, the existence of detailed data on the origin of strains (substrate isolation and geographic location, among others), availability of other relevant data, such as morphology, physiological and molecular data, pathogenic potential and possible restrictions to its distribution.
  - c) The strains deposited will be subjected to purity and identification control by PYCC staff. International accepted standard methods will be used in authentication of cultures. PYCC cannot accept cultures that do not meet the required conditions of purity, whose identity is doubtful or that are not viable.
  - d) Strains for commercial purposes can be deposited in PYCC. A service fee stipulated by the Coordinator will be charged.
  - e) Cultures that lose their viability, which become irreversibly contaminated or which result in the duplication of existing strains may be withdrawn from PYCC.

2. Maintenance of cultures
  - a) The existing cultures as well as the ones that will be deposited, once certified by PYCC staff, will be maintained using international established procedures (viz. cryopreservation at  $-150^{\circ}\text{C}$ ).
  - b) Periodically, PYCC staff will check the status of the cultures, namely their viability and purity.
  
3. Characterization of cultures
  - a) Whenever the information available is incomplete, all preserved cultures will be subjected to morphological, physiological and/or molecular characterization tests by PYCC staff.
  - b) The data for each strain, as well as other relevant available information shall be deposited in a database that will be made available to third parties by the appropriate means (viz., by setting up a website and online catalogue of the collection).
  - c) The catalogue will contain information about the identity of the cultures, their origin and their inclusion in other culture collections. The database should contain information available in the catalogue as well as the morphological, physiological and/or molecular data of the cultures.
  
4. Supply of cultures
  - a) PYCC provides cultures for use in trustworthy, national or foreign, teaching or research institutions, provided that the source of the cultures is properly acknowledged by the institutions in publications resulting from the study or use of the cultures. Only PYCC staff will have direct access to cultures and may provide them to third parties upon permission from the Coordinator.
  - b) The preparation and distribution of cultures will involve a fee stipulated by the Coordinator.
  - c) Until the establishment of fees, the cultures obtained from international service collections (e.g., type cultures) cannot be distributed to third parties for free and may only be used by members of CREM.
  - d) The cultures supplied for academic, research or commercial purposes may involve the issuing of a "Material Transfer Agreement" agreed between the parties.
  
5. Assignments of PYCC personnel
  - a) PYCC Coordinator must ensure the compliance of the mission objectives and procedures set forth in this Policy Statement. He will also undertake the functions of the Curator until his hiring or in his absence, ensuring the main tasks described in Article 2 (clause 1).
  - b) The Curator is a CREM post-doctoral researcher. His skills should include: knowledge on fungi and/or yeast biology, including systematics, ecology and maintenance; good leadership, enterprise and supervision skills, which will allow him to manage the collection adequately and to apply for funding, e.g. for research.
  - c) The Curator's tasks are: daily management of PYCC, in coordination with the Coordinator; analysis and decisions on culture deposit or supply requests; co-supervision of the Technician tasks; collaboration in preparing of the annual budgets and reports. The Curator is also expected to propose and lead collaborative research projects in PYCC expertise areas and to represent PYCC at national and international culture collection meetings.

- d) The skills of the Technician must include good knowledge of microbiology and database management. The main tasks of the Technician are receiving, supplying and preserving yeast cultures. Additionally tasks will include: certification and characterization of the cultures received and provided; input of information about the cultures onto the database; implementation of the online catalogue; perform any necessary identification services that may be requested to PYCC. The Technician may also perform research activities in projects in which PYCC is involved, under the supervision of the Curator and/or Coordinator.
- e) It is also the competence of PYCC staff to implement and/or coordinate training courses in the areas of yeast systematics, ecology and maintenance, in collaboration with other CREM members and/or national or international researchers.

#### 6. Financial management

- a) The Curator will propose a budget for PYCC annually in accordance with the predictions of the different fixed and variable costs, including current expenses and equipment necessary for the management and research activities. Funds for operation of PYCC will originate from various sources, which may include: research projects, supply of strains and/or services, training collaboration or services, funding from CREM budget approved by CREM Coordinator, and donations from individuals or companies.
- b) The annual budget will be submitted to the Steering Committee for approval.
- c) The financial management will be ensured by FCT/UNL accounting department, where the PYCC Cost Centre will be based.

#### 7. Annual report

- a) The annual report shall include information on the cultures received and supplied, a summary of the activities involving characterization of cultures, research and training activities conducted by PYCC staff, participations in scientific meetings or in meetings related to culture collections.
- b) The report shall be submitted to The Steering Committee for approval.

#### 8. Composition and Assignments of the PYCC Steering Committee

- a) The members of PYCC Steering Committee as well as the duration of its functions shall be proposed by the Coordinator of CREM, upon consultation with the FCT/UNL Board and the current Steering Committee. Its members currently include:
  - A representative of FCT/UNL Board;
  - A representative of “Estação Vinícola Nacional” (INIA, INRB/IP);
  - A yeast expert representing CREM;
  - Eng. Augusto Martins (father of Prof. Isabel Spencer-Martins);
  - Prof. Cecília Leão;
  - Prof. Milton Costa;
  - Prof. Rogério Tenreiro;
  - PYCC Coordinator.
- b) It is the duty of the Steering Committee to ensure the proper operation and durability of PYCC and to analyse and approve the PYCC annual budget and report.
- c) The Steering Committee meets annually during the month of January.

## **Article 5 - Final Provisions**

1. The cultures deposited in PYCC as well as the information available for those same cultures were the result of more than 50 years of activities of several researchers and research technicians, and represent an invaluable biological, genetic and knowledge heritage for future generations of researchers, for science and technology, and society in general.
2. The permanence of PYCC should be ensured not only by its staff, but also by the Steering Committee, the host R&D unit (CREM) and the host institution, FCT/UNL.
3. The directives on the mission, objectives, management and operation of PYCC defined in this Policy Statement should not be changed in the case of the extinction of CREM or due its integration in another R&D unit. In such case, wherever "CREM" is mentioned throughout the present document one should read "R&D unit that hosts PYCC".
4. If the R&D unit that integrates PYCC (CREM) and/or the host institution, FTC/UNL, are unable to guarantee the continuity of PYCC, the Steering Committee should recommend the transfer of PYCC cultures and associated databases, equipment and funds to another R&D unit and/or institution that ensure its physical and financial sustainability.

Campus of Caparica, October 23, 2009