

EVALUATION OF BIOFILM FORMATION of *Paracoccidioides brasiliensis* IN A THREE-DIMENSIONAL SPHEROID MODEL IN REGARD TO THE ROLE OF ADHESINS 14-3-3 AND METHODS OF CONTROL.

Data Collection

What data will you collect or create?

Goal 1:

- Absorbances and graphs referring to the characterization of *Paracoccidioides brasiliensis* biofilms, both the mutated and wild strains.

Goal 2:

- Absorbances and graphs referring to the presence or absence, and quantification of 1,3 β -glucan from *Paracoccidioides brasiliensis* biofilms, both the mutated and wild strain.

Goal 3:

- Development of models for biofilm formation and infection;
- Images of the sizes of spheroids produced using In Cell Analyzer 2000, as well as their diameter using Image J Software;
- Confocal microscopy and scanning electron microscopy images of infected or uninfected models;
- Analysis of DNA expression of both species.

Goal 4:

- Development of models for biofilm formation and infection in suture thread;
- Images of the sizes of spheroids produced using In Cell Analyzer 2000, as well as their diameter using Image J Software;
- Confocal microscopy and scanning electron microscopy images of infected or uninfected suture models;
- Analysis of DNA expression of both species.

Goal 5:

- Analysis of gene expression of proteins related to pathogenicity and virulence factors;
- Ratio between absorbances to determine concentration and purity of RNA extracted from samples;
- Construction of cDNA libraries;
- Knowledge about the transcripts involved in biofilm formation of both species in vitro in an ex vivo model.

Goal 6:

- Images of biofilm formation produced using In Cell Analyzer 2000, as well as their size and characteristics using Image J Software;
- Fluorescence microscopy images for structural visualization of biofilms formed for different substances produced by them.

Goal 7:

- Sensitivity tests using nitrofurazone and other compounds on biofilms in the 3D model.
- Absorbances relating to cell viability and metabolism of the biofilms formed.

How will the data be collected or created?

Data will be collected from equipment output software and data analysis software, including: In Cell Analyser 2000, Image J, Graph Prism 7.0, Zen Blue 3.2, Illumina HiSeq 2500.

Documentation and Metadata

What documentation and metadata will accompany the data?

The data obtained will be shared on *Google Drive*, which will contain a folder with the name of the project. Every 20 days, raw data, processed data, initial manuscripts and corrected manuscripts with the reviewers' recommendations will be inserted into this folder.

Accepted articles will be demonstrated in the form of PROOF and supplementary material (if applicable); The folders with each file will be shared with other researchers involved in the project; Each researcher involved in the project will archive a copy of the data on their personal computers; Each experiment will be physically recorded in an ATA book located in the laboratory; The description on how to access the data made available by the project can be found on one of the data management platforms suggested by FAPESP (DMPtool).

Ethics and Legal Compliance

How will you manage any ethical issues?

Not applicable

How will you manage copyright and Intellectual Property Rights (IP/IPR) issues?

If the results present technological potential, patents may be requested (analyzed under the criteria of the UNESP/AUIN Innovation Agency) and for publications related to this research project, Copyright will follow the policy of each journal.

Storage and Backup

How will the data be stored and backed up during the research?

Data will be stored on Google Drive

(<https://drive.google.com/drive/u/0/folders/1C5bvq29sQCGaRmBgSafaHSZmwZD0vful>) and on an external HD. Data backup will be carried out every 10 days, under the responsibility of project members.

How will you manage access and security?

The drive containing the data will be accessed using passwords authorized by Professor Dr. Maria José Soares Mendes Giannini, which will guarantee the security of this information for the researchers involved, scientific initiation, master's and doctorate students. The HD external will be under the possession of Dr. Ana Marisa Fusco Almeida.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

Not applicable.

What is the long-term preservation plan for the dataset?

The data considered relevant and permitted access for this research will be stored in the Unesp Institutional Repository.

Data Sharing

How will you share the data?

The relevant data with permitted access from this research will be stored in the Unesp Institutional Repository and the community will have access through this means.

Are any restrictions on data sharing required?

The data restricted to sharing will be those that may be subject to patent analysis, after the completion of this research. After deposit, the data can be shared.

Responsibilities and Resources

Who will be responsible for data management?

Data administration will be the responsibility of Professor. Dr. Maria José Soares Mendes Giannini, leader of the group

What resources will you require to deliver your plan?

Responsible for the project: Professor Dr. Maria José Soares Mendes-Giannini

Personnel responsible for executing the instruments: Profa. Ana Marisa Fusco Almeida.

Data Collector: Dr. Lígia de Souza Fernandes, Msc Ana Karla Lima Freire Cabral, J, Kelvin Souza dos Santos and Matheus Bordoy Mendonça.

Data analyzer: Dr. Lígia de Souza Fernandes, Msc Ana Karla Lima Freire Cabral, Kelvin Souza dos Santos and Matheus Bordoy Mendonça.

Computing team responsible for storage: Eduardo Dini – Technical Director of IT at the Faculty of Sciences
Pharmaceuticals (FCF- Araraquara-UNESP)
