



## INTERNATIONAL CALL

**Announcement for grant of postdoctoral fellowship in Biobank elaboration and evaluation of biocompatibility in scaffolds produced using biomaterials and sterilized by ionizing radiation**

### **FAPESP Institutional Project**

The Institutional Project "**Scientific, Technological and Infrastructure Capacitation in Radiopharmaceuticals and Radiation at the Service of Health**", FAPESP process nº 2017/50332-0 opens a vacancy for a **postdoctoral** fellow through this Public Notice.

### **PRESENTATION**

The project, funded by FAPESP, has a team consisting of a multidisciplinary group that includes researchers participating at IPEN, whose lines of research are focused on the study and development of new radiopharmaceuticals and radioactive sources, specifically tissue engineering applied to the medical field, contemplating natural or synthetic scaffolds and human cells. The objective of this project is to evaluate the possibility of using scaffolds to be made available together with radiopharmaceuticals, as a joint therapy or for controlled release, and the biocompatibility evaluation for in vitro and in vivo studies.

The postdoctoral fellow (PD) should conduct theoretical and practical research in the program, such as:

1. Preparation of the documents (forms and tables) for the cataloging and organization of the cells obtained and stored,
2. Retrieval of skin, mucosa or adipose tissue to extract cells,
3. In vitro culture of cells extracted from tissues for the elaboration of a cell catalog, following the good practices of cell culture,
4. Validation of the In vitro biocompatibility models to be used with the obtained cells,
5. Adipose tissue cells (somatic stem cells) to be used in biomaterial-type "scaffolds" models to investigate, through histological, immunohistochemical and non-destructive assays, the interaction of these cells in vitro together with different dermal-epidermal matrices repopulated by keratinocytes.

In addition to other regular activities, as a result of his (her) postdoctoral research, one should also produce articles to be submitted in academic journals of high impact, as well as present the results at a seminar, among other types of dissemination of the knowledge.

The PD grant aims to develop a specific project in the theme: "**Biobank elaboration and evaluation of biocompatibility in scaffolds produced with biomaterials and sterilized by ionizing radiation**".



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The main goal of this sub-project under coordination of Dr. Monica Beatriz Mathor refers to organizing, cataloging and storage of cells isolated from tissues and proof of compatible niche theory for the differentiation of mesenchymal cells in the dermo-epidermal reconstruction aiming applications as a cutaneous graft, as well as the evaluation of the biocompatibility of the dermal substitutes.

Cell storage protocols should focus on the stability and safety of biological material to promote full utilization in scientific research, also aiming to adapt these researches within the new international standards in terms of reducing the number of animals undergoing experimentation, and substitution by equivalent tests.

### CONDITIONS OF THE FELLOWSHIP

The opportunity is open to Brazilian and foreign candidates. The candidate shall present good skills in spoken and written English language.

It is essential to have prior knowledge and experience in:

- Isolation of skin cells and adipose tissue,
- Primary cell culture or few passages,
- Evaluation of "in vitro" and "in vivo" biocompatibility tests,
- Morphological characterization of cultured cells.

The work will be carried out at the Nuclear and Energy Research Institute, specifically at the Radiation Technology Center.

The selected candidate will receive a scholarship equivalent to R\$ 7,174.80 (seven thousand, one hundred and seventy-four reais and eighty cents) per month and a technical reserve, equivalent to 15% (fifteen percent) for the expenses directly related to the research activity.

The grant also includes installation assistance for researchers who need to move to the city of São Paulo, Brazil, home of the lead institution of the project.

The scholarship lasts for 12 months and is extendable up to 6 months, with the possibility of implementing a BEPE - Research Grant Abroad in which the candidate may develop part of the research in a reference institution overseas. The supervisor will select the institution. Rules for BEPE scholarship is available at <http://www.fapesp.br/7798> .

For the implementation of the scholarship, a dedication of 40 hours per week during business hours is mandatory.

Details on the subsidy for installation and more information: [www.fapesp.br/bolsas/pd](http://www.fapesp.br/bolsas/pd)

Only one applicant will be selected.



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### DOCUMENTS REQUIRED FOR APPLICATION

1. C. Lattes full ([www.lattes.cnpq.br](http://www.lattes.cnpq.br)) or Curriculum Vitae, if foreign;
2. MyCitation (Google Scholar);
3. Proposal for a research project related to the subject matter of this project. The research project must include a maximum of 10 pages in Portuguese or English: introduction, objectives, methodology, a method of analysis of results, expected results and bibliography;
4. Letter of presentation summarizing the reason for the in the scholarship and previous scientific experience.

### CONTACT AND DEADLINE

The candidate should send the documentation via e-mail to [egp01@ipen.br](mailto:egp01@ipen.br) with the title: "**Bolsa - PD Institucional – Biocompatibilidade**".

**The deadline for submission of entries will end on June/23<sup>th</sup>/2019 at 5:00 p.m. Subsequent registrations will not be accepted.**

For clarification and additional information about the Research Program, please contact us at [mathor@ipen.br](mailto:mathor@ipen.br).

### SELECTIVE PROCESS

Candidates will be selected upon a curriculum vitae evaluation, considering the candidate's publications, profile and trajectory, as well as the scientific quality of the proposal and its adherence to the project's research lines. If it is necessary, an interview maybe scheduled by video conference or presential.

### DISCLOSURE OF RESULTS

The result will be announced on the IPEN website until June/28<sup>th</sup>/2019.

The result will be announced in order of classification of the candidates in the selection process. The classification or ranking of the candidates will be considered as a waiting list;

If the best classified candidate does not present the necessary conditions for the implementation of the scholarship, the second place will be called, and so on, until the filling of the vacancy.

The decision of the Selection Committee will be taken definitively and will not be appealed.

**The selected candidate is expected to start work on August/1<sup>st</sup>/2019.**

Further information at: <http://www.fapesp.br/oportunidades>