

Health and Environmental Science Using Ion Beams

Teresa Pinheiro

Laboratório de Feixes de Iões (LFI) related with Health and Environmental Studies derive from the instrumental and expertise capabilities existing at ITN for the determination of chemical elements. The research carried out is oriented to biomedical applications in particular to the study of human pathological condition and to the response of biological systems to environmental stimulus.

Collaborations with national and international teams are expressed by the current research projects financed by national and international foundations. The multidisciplinary characteristic of the joint teams also permit to attract young scientists to carry out their BSc and PhD. thesis, which programmes of study are often within the activities of financed projects.

Apart from research activities, technical services are provided to private institutions, mainly on the characterisation of raw materials for the pharmaceutical industry.

Presently the instrumental capabilities for elemental determination are becoming fully explored and rapidly overwhelmed by qualified instruments developed in the past decade. Thus, some efforts are being done to diversify the analytical possibilities, such as to explore the combination of nuclear microscopy with other microscopy techniques and histochemical methodologies to assess cell response.

The main achievements of the research developed during 2003 are summarised in the following pages.

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Research Team

Researchers

- TERESA PINHEIRO, Researcher
- LUÍS C. ALVES, Research Assistant (25%)

Collaborators

- A BUGALHO DE ALMEIDA, Full Prof. FMUL
- M.CRISTINA SANTOS, Aux. Prof., FCUL
- A.M. VIEGAS-CRESPO, Aux. Prof., FCUL
- RAQUEL SANTOS, MD St. Maria Hospital
- PAULO FILIPE, MD St. Maria Hospital
- J. NUNO SILVA, MD St. Maria Hospital
- PAULA MONTEIRO, MD St. Maria Hospital

Students

- M. D. YNSA, PhD student, Univ. Seville, Spain
- C. MARQUES, PhD student, FC-UL
- P. NAPOLEÃO, FCT grant (BIIC)
- S. GABRIEL, FCT grant (BIIC)
- A. LUÍSA SIMÕES, Last Year BSc. Student, FCG grant
- J. TAPISSE, BSc. Student

Technical Personnel

- RUTE PINHEIRO

Funding (€)

Research Projects:	39.917,00
Services:	0
Total:	39.917,00

Publications

Books:	0
Journals:	4 and 2 in press
Proceedings:	2 and 3 in press
Conf. Communications:	0
Other publications:	0
Theses:	
MSc	0