

# RaBBIiT

Radiation Biology and Biophysics  
Doctoral Training Programme

International Meeting 2014

24 - 25 June

Laboratory and Radiation  
Safety Workshop 2014

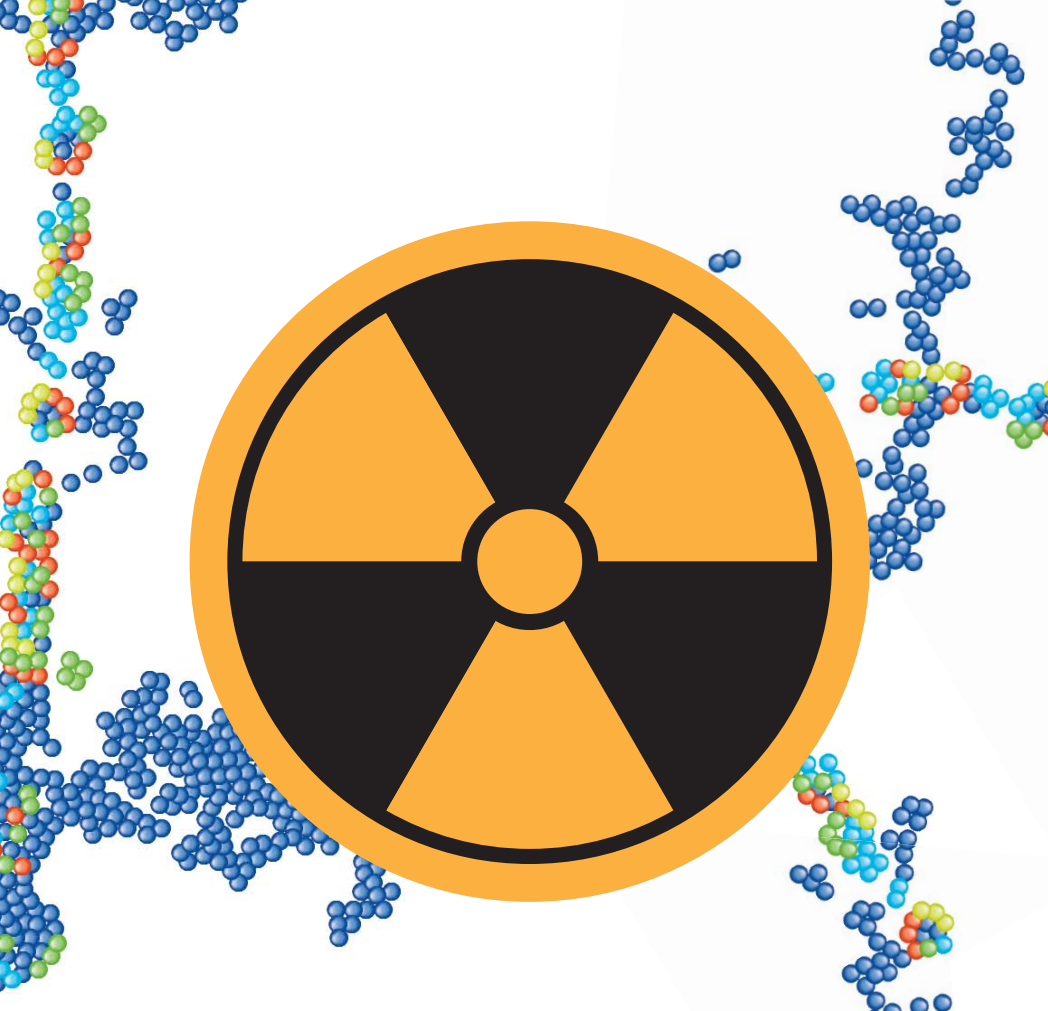
26 June

**FREE ENTRANCE**  
(registration required)

Registration & Info: [rabbit.coordenador@fct.unl.pt](mailto:rabbit.coordenador@fct.unl.pt)

<http://sites.fct.unl.pt/rabbit/pages/events>





Welcome to RaBBiT International Meeting 2014, the First Meeting of the Radiation Biology and Biophysics Doctoral Training Programme – RaBBiT (FCT/MEC, PD/00193/2012) and to the First RaBBiT Laboratory and Radiation Safety Workshop

RaBBiT 2014 permits for the first time to achieve a very privileged forum of sharing and establishing scientific expertises within academics but also with our post-graduate students on current radiation biology and biophysics themes, where there are exciting and new advances in molecular and macromolecular manipulations.

RaBBiT consortium was established taking into account the adequacy to successfully accomplish the proposed aims in its formal application but also a unique solid background on radiation biology, biochemical and biophysics techniques applied to atomic, molecular, macromolecular and cellular studies as well as to radiation induced processes.

Curricular structure was designed to bring up a new generation of postgraduates in a highly interdisciplinary research area by setting up the appropriate research training standards. The curricular structure has 240 ECTS corresponding to a four-year postgraduate programme. For more details see <http://sites.fct.unl.pt/rabbit>

The RaBBiT International Meeting 2014 benefits from the full participation of the External Supervisory Committee, which will certainly serve to supervise the programme achievements but also to advise and guide towards a better level of excellence. Also present will be members from:

- the proponent institution: Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa (FCT/UNL), Portugal;
- the participating institutions at international level: The Open University (OU), UK; Consejo Superior de Investigaciones Científicas (CSIC), Spain; University of Innsbruck (UI), Austria; Queen's University Belfast (QUB), United Kingdom;
- the participating institutions at national level: Centro de Física e Investigação Tecnológica (CEFITEC/FCT/UNL), REQUIMTE (Rede de Química e Tecnologia) - Laboratório Associado para a Química Verde and Centro Interuniversitário de História das Ciências e Tecnologia (CIUHCT).

The RaBBiT PhD international programme is financed by the FCT/MEC PhD Programmes.

The additional First RaBBiT Laboratory and Radiation Safety Workshop seeks to encourage all researchers and students to participate in, and contribute to the establishment and observance of safe working practices to prevent injury, ill-health, damage and loss, and to learn about the hazards and risks of chemistry laboratories and places where radiation is used. This Laboratory and Radiation Safety Workshop benefits from the full participation of Campus Tecnológico e Nuclear, Instituto Superior Técnico, Universidade de Lisboa with attributions mainly in the field of nuclear sciences and technologies, radiological protection and safety, and from the Safety Coordinator of the Chemistry Department (FCT/UNL).

The Directive Board  
Lisboa, June 2014

## International Meeting 2014

All presentations will be held in the library auditorium, library main building.  
Session 4 will be held in Manuel Laranjeira auditorium, building I.

Tuesday 24 <sup>th</sup> June	
Session 1	09:00 Welcome: The meeting will be opened by Prof. Fernando Santana, Dean of the Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal.
	09:15 <b>RaBBiT Programme Director</b> Paulo Limão-Vieira   <i>Universidade Nova de Lisboa, Portugal</i>
	09:30 <b>NOVA doctoral school</b> João Crespo   <i>Universidade Nova de Lisboa, Portugal</i>
	09:50 <b>Positron interactions and their applications in biomedical science</b> Stephen Buckman   <i>Australian National University, Australia</i>
	10:20 <b>Coffee Break</b>
	11:00 <b>New radiation biology for understanding advanced radiotherapies</b> Kevin Prise   <i>Queen's University Belfast, Northern Ireland</i>
Session 2	11:30 <b>Cellular detoxification and iron metabolism</b> Alice S. Pereira   <i>Universidade Nova de Lisboa, Portugal</i>
	11:50 <b>Mars is covered by perchlorate. Is there life in the red planet?</b> Cristina Costa   <i>Universidade Nova de Lisboa, Portugal</i>
	12:10 <b>Lunch</b>
	14:00 <b>Electron interactions with biomolecules</b> Eugen Illenberger   <i>Freie Universität Berlin, Germany</i>
	14:30 <b>Electron driven processes in biomolecules and clusters</b> Sam Eden   <i>The Open University, United Kingdom</i>
	15:00 <b>On the road to improve the bioremediation and electricity-harvesting from electrigenes</b> Carlos Salgueiro   <i>Universidade Nova de Lisboa, Portugal</i>
	15:20 <b>Experimental studies on the low-energy electron interaction with biomolecules</b> Stephan Denifl   <i>University of Innsbruck, Austria</i>
	15:40 <b>Coffee Break</b>
	16:00 <b>Committee Meetings</b>
	Wednesday 25 <sup>th</sup> June
Session 3	09:00 <b>Spontelectrics: a new form of the solid state</b> David Field   <i>Aarhus University, Denmark</i>
	09:30 <b>Modelling electron and positron tracks for biomedical applications</b> Gustavo García   <i>Consejo Superior de Investigaciones Científicas, Spain</i>
	10:00 <b>Radiation effects in macromolecules and oxidative stress markers</b> Pedro Tavares   <i>Universidade Nova de Lisboa, Portugal</i>
	10:20 <b>Electrochemistry applied to biological systems</b> Cristina Cordas   <i>Universidade Nova de Lisboa, Portugal</i>
	10:40 <b>Coffee Break</b>
	11:00 <b>Oxidative stress sensors</b> Cristina Timóteo   <i>Universidade Nova de Lisboa, Portugal</i>
	11:20 <b>Synthetical chiral selectors</b> M. Manuela A. Pereira   <i>Universidade Nova de Lisboa, Portugal</i>
	11:40 <b>Cheminformatics predictions of DFT-calculated properties</b> João Aires de Sousa   <i>Universidade Nova de Lisboa, Portugal</i>
	12:00 <b>Lunch</b>
	14:00 <b>Development of functional films for technological applications</b> Susana Sérgio   <i>Universidade Nova de Lisboa, Portugal</i>
Session 4	14:30 <b>Biomimetics of membranes and rudimentary cells</b> Maria Raposo   <i>Universidade Nova de Lisboa, Portugal</i>
	14:50 <b>Electron and potassium interactions with biomolecules</b> Filipe Ferreira da Silva   <i>Universidade Nova de Lisboa, Portugal</i>
	15:10 <b>Concluding remarks</b> Paulo Limão-Vieira   <i>Universidade Nova de Lisboa, Portugal</i>
	15:30 <b>Coffee Break and Departure</b>

## RaBBiT Laboratory and Radiation Safety Workshop 2014

### RaBBiT Segurança em laboratório e protecção radiológica Workshop 2014

**Oficial language:** Portuguese

**Público Alvo:** Investigadores, trabalhadores na área, estudantes de mestrado, doutoramento, pós-doutoramento.  
**Objectivos:** Aprofundar os conhecimentos dos participantes em Segurança em Laboratório (manuseamento de substâncias perigosas) e Protecção e Segurança Radiológica. Discutir aspectos ligados à implementação e operacionalização nos locais de trabalho. Promover e fomentar a cultura de segurança. Documentação disponibilizada em formato digital.

Quinta-feira 26 Junho	
09:00	<b>Fundamentos e conceitos de protecção radiológica. Legislação. (Fontes não seladas, fontes seladas e conceito de dose. Monitorização radiológica).</b> Pedro Vaz/ Luis Portugal   <i>Campus Tecnológico e Nuclear, Instituto Superior Técnico, Universidade de Lisboa</i>
	<b>Efeitos biológicos da radiação.</b> Octávia Monteiro Gil   <i>Campus Tecnológico e Nuclear, Instituto Superior Técnico, Universidade de Lisboa</i>
10:40	<b>Intervalo</b>
11:00	<b>Manipulação de fontes radioactivas. Contaminações e descontaminações. Procedimentos em situações de emergência.</b> Maria Vaz das Neves   <i>Campus Tecnológico e Nuclear, Instituto Superior Técnico, Universidade de Lisboa</i>
	<b>Gestão de resíduos radioactivos.</b> Isabel Paiva   <i>Campus Tecnológico e Nuclear, Instituto Superior Técnico, Universidade de Lisboa</i>
12:50	<b>Almoço</b>
14:00	<b>Segurança em laboratórios de Química. Riscos no manuseamento de substâncias químicas perigosas. Legislação. Classificação, embalagem e rotulagem de substâncias químicas perigosas. Fichas de dados de segurança e fontes de informação.</b>
	<b>Incompatibilidades e armazenagem de substâncias químicas. Protecção colectiva e individual. Acidentes e equipamentos de emergência.</b> M. Manuela A. Pereira   <i>Departamento de Química, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa</i>
16:30	<b>Encerramento</b>

**Directive Board**  
Paulo Limão-Vieira, FCT/UNL, Portugal  
Pedro Tavares, FCT/UNL, Portugal  
Alice S. Pereira, FCT/UNL, Portugal  
António Manuel Nunes dos Santos, FCT/UNL, Portugal  
Maria Raposo, FCT/UNL, Portugal  
Gustavo García, CSIC, Spain  
Kevin Prise, Queen's University Belfast, United Kingdom  
Jimena Gorfinkiel, The Open University, United Kingdom  
Stephan Denifl, University of Innsbruck, Austria

**Executive Committee**  
Paulo Limão-Vieira, FCT/UNL, Portugal  
Alice S. Pereira, FCT/UNL, Portugal  
Pedro Tavares, FCT/UNL, Portugal

**External Supervisory Committee**  
Eugen Illenberger, Freie Universität Berlin, Germany  
David Field, Aarhus University, Denmark  
Stephen Buckman, Australian National University, Australia

**Tutor of Postgraduates**  
Paulo Ribeiro, FCT/UNL, Portugal

**Workshop coordinator**  
M. Manuela A. Pereira, FCT/UNL, Portugal

**Ana Luísa Cruz (local secretary), CEFITEC**  
Campus de Caparica  
2829-516 Caparica, Portugal  
Tel.: (+351) 212 947 831

# RaBBiT

## Radiation Biology and Biophysics Doctoral Training Programme

### International Meeting

24 - 25 June 2014

### Laboratory and Radiation Safety Workshop

26 June 2014