

## OPEN POSITION

### Early-Stage Researcher / PhD position (ESR 6) at University of Cambridge, United Kingdom

This ESR position is part of the European Training Network “BIOREMIA” dealing with research on novel biofilm-resistant materials for hard tissue implant applications. BIOREMIA offers the possibility to pursue the PhD within the Network at different universities and industrial companies from 10 European countries (Germany, Austria, Italy, Sweden, Greece, UK, Spain, Ireland, France, and Switzerland).

Background information on all ESR positions and BIOREMIA Network is available on [www.bioremia.eu](http://www.bioremia.eu). BIOREMIA (“*BIO*film-*RE*sistant Materials for hard tissue Implant Applications”) is funded by the European Union’s Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement no. 861046.

<b>Job title</b>	<b>Early-Stage Researcher (PhD student position) / ESR 6</b>
<b>Project title</b>	<b>ESR 6: Antimicrobial Bioactive Composites with Controlled Resorbability</b>
<b>Application deadline</b>	03/03/2020
<b>Expected starting date<sup>1</sup></b>	August 2020 (approx.)
<b>Recruiting institution</b>	The Chancellor, Masters and Scholars of the University of Cambridge (UCAM) The Old Schools, Trinity Lane, Cambridge, CB2 1TN Website: <a href="https://www.cam.ac.uk/">https://www.cam.ac.uk/</a>
<b>City, Country</b>	Cambridge, UK
<b>Job/project description</b>	<p><b>Objectives:</b> Production and characterisation of micro- and nano-particles of bioactive substituted ceramics containing ions with bactericidal potential (e.g. Ag, Cu etc.). Incorporation of these particles into resorbable polymers to form composite. Development and optimisation of methods for particle dispersion in composites and evaluation of mechanical response and degradation behavior. Characterisation of the material properties of the composites using a range of different techniques. Assessment of cell behaviour in contact with the materials. Compositions survey using preliminary tests for antimicrobial action.</p> <p><b>Expected Results:</b> The experiments will result in a series of compositions with varying degradation rates and mechanical properties controlled by the polymer composition and the filler content. The chemical nature of the filler particles will determine the bone bonding / bactericidal capacity of the composites. At the end of the project, it will be possible to rank the compositions according to their degradation rate, potential for bone repair.</p> <p>The ESR will travel abroad for research secondments at partner organisations of the BIOREMIA Network (e.g. at Goeteborgs Universitet-Sweden, Ashland Specialities Ireland Ltd., Stryker Trauma GmbH -Germany) and will participate in specialised training meetings and international conferences.</p>
<b>Appointment</b>	The appointment will be on a temporary basis for a maximum period of <b>36 months</b> (PhD student, regular full-time employment contract), with an attractive salary plus allowances package according to the Marie Skłodowska-Curie / Innovative Training Networks rules.

<b>Eligibility conditions</b>	<p>Applicants must at the time of recruitment:</p> <ol style="list-style-type: none"> <li>1) Be in the first four years (full-time equivalent) of their research careers</li> <li>2) Have not resided in United Kingdom for more than 12 months in the last 3 years</li> <li>3) Have not been awarded a doctoral degree.</li> </ol>
<b>Candidate's profile</b>	<ul style="list-style-type: none"> <li>• Applicants must hold a Master's degree or equivalent in Materials Science and Engineering or Physics providing access to PhD programs and should have experience with experimental research.</li> <li>• Applicants must have excellent proficiency in written and spoken English as indicated on the University website for graduate admissions <a href="https://www.graduate.study.cam.ac.uk/international/competence-english">https://www.graduate.study.cam.ac.uk/international/competence-english</a>.</li> <li>• Applicants must have strong motivation and ability to collaborate in an interdisciplinary and international team</li> </ul>
<b>How to apply<sup>2</sup></b>	<p>Interested candidates should send an application containing the following documents in English (and, when necessary, a certified translation of official documents):</p> <ul style="list-style-type: none"> <li>• Motivation Letter (describing research career goals, skills, experience, and highlighting the consistency between the candidate's profile and the chosen ESR position)</li> <li>• A complete Curriculum Vitae with references to past research and training experiences</li> <li>• Copies of Bachelor and Master's certificates/diploma &amp; transcripts</li> <li>• Two Reference Letters</li> <li>• Publications (if available).</li> </ul> <p>Applications should be sent by e-mail <u>as a single PDF</u>, quoting the project name and the ESR position "<b>BIOREMIA - ESR 6</b>", to: Anna Perkins at <a href="mailto:afp31@cam.ac.uk">afp31@cam.ac.uk</a>. Applications can also be submitted via the online <i>Application Form</i> at <a href="http://www.bioremia.eu">www.bioremia.eu</a></p>
<b>Further information</b>	<ul style="list-style-type: none"> <li>• Any questions or queries about this ESR position should be submitted by email to Anna Perkins at <a href="mailto:afp31@cam.ac.uk">afp31@cam.ac.uk</a>.</li> <li>• Some background material about host institution can be found here: <a href="https://www.ccmms.msm.cam.ac.uk/">https://www.ccmms.msm.cam.ac.uk/</a> and <a href="http://www.bioremia.eu">www.bioremia.eu</a></li> </ul>

<sup>1</sup> Employment start date to be mutually agreed

<sup>2</sup> The recruiting organization may decide to interview only those applicants who appear from the information available, to be the most suitable, in terms of experience, qualifications and other requirements of the position.

The University of Cambridge is committed in its pursuit of academic excellence to equality of opportunity and to a proactive and inclusive approach to equality, which supports and encourages all under-represented groups, promotes an inclusive culture, and values diversity.

The University of Cambridge has a responsibility to ensure that all employees are eligible to live and work in the UK.