**Job description**

Senior Research Associate in Metabolic Modelling

Ref: A3502

<table>
<thead>
<tr>
<th>Job Title: senior research associate in metabolic modelling</th>
<th>Present Grade: 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department/College: Lancaster Environment Centre</td>
<td></td>
</tr>
<tr>
<td>Directly responsible to: Prof Elizabete Carmo-Silva</td>
<td></td>
</tr>
<tr>
<td>Supervisory responsibility for: n/a</td>
<td></td>
</tr>
</tbody>
</table>

Other contacts

Internal:
Prof Steve Long, Prof Martin Parry, research staff and students within the Photosynthesis research team and the Lancaster Environment Centre. Admin staff.

External:
Project partners at Fraunhofer IME and other institutions within the PhotoBoost consortium. Other stakeholders as necessary.

Major Duties:

- Be responsible for the design of experiments that address the project objectives by testing specific hypotheses.
- Lead the development, refinement and application of metabolic models that simulate complex photosynthetic pathways/networks to predict effects of pathway modifications.
- Lead the identification of enzyme variants with faster activity or better properties for higher photosynthetic efficiency.
- Research and perform appropriate statistical analyses. Develop custom statistical methods and algorithms, as required. Interpret and discuss results.
- Lead the conception and preparation of manuscripts for publication of project findings.
- Participate in, and disseminate research at, internal and external meetings, including international conferences.
- Plan and manage own research activities and priorities, as required, to meet project targets. Complete project milestones in an organized and timely fashion.
- Contribute to the preparation of project reports for the funder and stakeholders. Ensure project IP rules are adhered to.
- Liaise with colleagues to resolve practical and theoretical problems concerning methodology, analysis and ethics that arise whilst conducting research.
- Be knowledgeable of standard operating procedures. Contribute to the development of protocols and workflows, as required.
- Follow health and safety guidelines. Contribute to risk assessments, as required.
- Help train students and colleagues by sharing technical, analytical and/or theoretical knowledge.
- Engage in collaborations with colleagues and co-investigators, locally and internationally.
- Any other duties as may be reasonably required by the line manager.