JOB DESCRIPTION

Vacancy Ref: A3412

<table>
<thead>
<tr>
<th>Job Title:</th>
<th>Senior Research Associate – Raman Spectroscopy</th>
<th>Present Grade: 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department/College:</td>
<td>Department of Chemistry</td>
<td></td>
</tr>
<tr>
<td>Directly responsible to:</td>
<td>Dr Lorna Ashton</td>
<td></td>
</tr>
<tr>
<td>Supervisory responsibility for:</td>
<td>Undergraduate and postgraduate students</td>
<td></td>
</tr>
</tbody>
</table>

Other contacts

Internal:
Staff and postgraduate students of the Chemistry department

Major Duties:
The postdoctoral research associate will carry out research into the development of thin film formation and surface enhanced Raman spectroscopy for biomolecular determination using Raman spectroscopy.

Key Responsibilities
Under the supervision of Dr Lorna Ashton, the postdoctoral research associate will:
- Conduct a range of experiments to develop functionalized nanoparticle sensing films for surface enhanced Raman spectroscopy (SERS) and monitoring of DNA interactions
- Conduct a range of experiments to investigate biomolecular thin film formation on a range of surfaces, to establish control of drying effects and sample distribution
- Acquire Raman spectra and SERS of biomolecules deposited on developed surfaces.
- Undertake and develop analysis methods of the acquired Raman spectra using a range of software, including MatLab.
- Contribute to the day-to-day running of the Raman spectroscopy rooms and Teams discussion group including the upkeep of safety documentation and the organization of training for new staff and students.
- Participate and help in the organization of regular project and group meetings with colleagues at Lancaster including preparation and presentation of talks, posters and reports to disseminate the results of these studies.
- Participate in national and international conferences and workshops to present the results of the project to a wider audience and to learn about current advances in the field.
- Preparation of journal papers for publication of project findings.
- Participate in (and ultimately taking the lead in) writing new research proposals that build on the expertise developed in this project.
- Have supervisory responsibility for undergraduate and postgraduate students
- Undertake necessary training and development
- Other duties commensurate with the grade of the post, as directed by the PI