



**College/Service:** Technical Services  
**Post/Job Title:** Senior Experimental Officer  
**Reference number:** P64410  
**Grade:** G  
**Responsible to:** Prof. J. Moger  
**Responsible for:** Clinical Coherent Raman Scattering (CONTRAST) Facility

### **Job Description**

The main purpose of the role is to establish the Exeter CONTRAST facility and then support its future day-to-day operation. Initially the Senior Experimental Officer (SEO) will lead the procurement of the new apparatus, and then develop and integrate the apparatus to produce working experiments that may be operated by both internal and external (to the university) users. The SEO will develop and implement procedures to manage user access, and provide assistance to users with their experiments. It is expected that the person will have the status of a full collaborator in many of the projects, and will also pursue research projects of their own that maintain their status as a leading authority on the development and application of the experimental techniques used. They will thereby publish research in internationally leading journals, such that their research output may be included in future Research Excellence Framework (REF) assessments.

### **Key responsibilities**

1. Work with the investigators from the underpinning EPSRC grant to identify the optimum and most cost effective equipment specification required to deliver the scientific aims of the CONTRAST project.
2. Lead the procurement of the apparatus for the CONTRAST facility and determine how it will be located within the laboratory.
3. Lead the integration of different items of apparatus (including lasers, external optics, microscopes, and electronic measurement instrumentation), with the generation of suitable control software, to form the experiments required for the delivery of the project.
4. Ensure that the operation of the facility is compliant with statutory safety requirements.
5. Establish and maintain procedures for the receipt and assessment of user proposals, communication with users about their experiments, and user access to the laboratory.
6. Maintain the facility website and ensure that experimental data generated by the facility is backed up and made available in accordance with Research Data Management requirements.
7. Assist users by giving advice prior to their use of the facility, by helping them to set up and run their experiments, providing advice on analysis of data, and making input into the resulting publications.
8. Remain informed of the state-of-the-art in biomedical applications coherent Raman, and contribute to funding applications designed to maximize use and development of the facility.
9. Act as the laser safety officer for the facility and work with the University's designated laser safety lead to ensure that the facility is fully compliant with H&S and laser safety regulations.

### **Main Duties and accountabilities**

#### **Service Delivery (Research Support)**

- Initiate improvements in service delivery within the CONTRAST facility.
- Create a positive image of Technical Services by being prompt in responding to requests.
- Work with partners across the University to forecast the implications of new legislation on the facility and develop procedures to ensure compliance.
- Set and maintain a high level of service delivery within the facility in support of research and commercial activities, including establishment of performance indicators.
- Pre-empt changes in stakeholder needs and anticipate future requirements.

- Maintain the overall service quality, balancing different demands.
- Ensure others have the support they need to fulfil their role.
- Provide regular and routine introductions.
- Create the business case and advise senior staff about the optimum use of resources to achieve targets.
- Provide guidance and advice to team and teams with regard to the implementation of resources and staffing to achieve key business plan objectives and maximise the use and efficiency of resources.
- Take responsibility for ensuring that technical support provision meets the needs and criteria necessary to achieve the academic and commercial goals of the facility.
- Liaise with key stakeholders and build extensive relationships to ensure service provision is comprehensive and fit for purpose.
- Proactively engage with academic colleagues and service users to ensure short-term and long-term needs regarding equipment and resources are thought through during the planning of activities, and suitable alternatives or accommodations made.
- Provide assessment of an activity to service users, to ensure it meets agreed specifications as identified with academic colleagues in advance.
- Provide overall point of contact for the facility in respect of advice and define rules and policy regarding users and access arrangements.
- Plan the use of the facilities with academic staff and establish and cultivate long-term relationships with academic staff and other professional service teams.
- Create an environment in which innovative, efficient and effective ways, employed by the technical team, flourish to reflect the values of the organisation and facility.
- Responsible for liaising with academic staff to determine the parameters of input provided by technical staff to service users.

### **Communications**

- Receive, understand and convey complex conceptual ideas and information that may be highly detailed, technical or specialist. This may include material that would not be immediately understandable to those outside the area of work, or combines topics drawn from a number of disciplines.

### **Teamwork and motivation**

- Understand and manage the inter-relationships between different teams and their impact on the overall aims of the facility.
- Help break down barriers between teams.
- Build beneficial working relationships across teams.

### **Liaison and Networking**

- Interact on a day-to-day basis with the lead academic regarding strategic level information that significantly impacts on the facility.
- Influence significant events, or undertake collective decisions across a significant part of the facility as part (or as lead) of a working group.
- Initiate, build or lead ongoing working groups where the purpose of the involvement is to develop a benefit which is useful to a significant part of the facility in terms of commercialisation, teaching or research.

### **Decision Making, Processes and Outcomes**

- Work with the Lead Academic, Head of Technical Services and College Executive Groups (CEG), to allocate significant resources such as space, and purchase of equipment that will affect service delivery on an ongoing basis.
- Work with the HoS and CEGs to implement decisions that need to be incorporated in the Technical Services business plan.
- Provide business intelligence information that will influence the development of college business plans.
- Act as a point of contact within the institution to provide feedback regarding highly specialist techniques and procedures and act as a catalyst to further the understanding of others.
- Put together plans and identify appropriate development routes for team members and individuals identifying key learning objectives and criteria.

## **Leadership, Planning and Organising Resources**

- Work with the HoTS on the development of long-term strategic planning for issues affecting technical services delivery.
- Be responsible for managing budgets; management of staff; setting of objectives; monitoring progress and keeping to timescales; planning for the future; and coordinating and monitoring the implementation of plans.
- Work on their own as a proactive team member, act of point of contact and mentor team members.
- Provide strategic leadership, in subject specialism, within the technical team and lead a diverse technical team.
- Leadership skills ensure the engagement of all team members and align individuals and teams to business and team objectives.
- Translate strategic objectives into localized plans for teams.
- Manage budgets and authorize large items of expenditure.
- Create plans for projected staff and resource requirements as part of organizational business planning purposes.
- Ensure all team members have access to policy and procedures relevant to individual and team working.
- Ensuring that all team members understand the implications of best practice and any relevant learning needs are identified, and met, to ensure compliance with organizational policy and procedures.
- Act as an authoritative point of contact within the team, and outside of the team, with regard to specialist knowledge or expertise on policy or procedural issues.

## **Initiative and Problem Solving.**

- Resolve problems where there is a lack of precedent that calls for innovation and creative thought to develop appropriate options.
- Anticipate problems and make projections.
- Initiate solutions that take into account the strategic direction of the College and Technical Services.
- Recognized as a sole source of problem resolution within the institution and/or outside of the institution within a field or subject specialism.
- Spends a high percentage of time working within or leading teams where the purpose is to 'hot bed' new ideas and creativity is required over short periods for a specific aim that is considered highly original.

## **Analysis and Research**

- Generate original ideas to build on existing concepts.
- Generate new concepts and methodologies and to develop new practices in teaching, research and commercial activities. This may involve liaison with external bodies to identify future requirements.

## **Sensory and Physical Demands**

- Use physical and sensory abilities and skills to perform complex tasks at a level which would require either knowledge of relevant methods or routines.

## **Working Environment**

- Manage and intervene to restructure workloads.
- Expected to act rather than refer matters to others.
- May be required to assess the potential degree of risk in the situation and take action in anticipation of that risk, assessing risk assessments and COSHH assessments (as required).
- Frequently make safety related decisions in a high risk environment. This may take place in a high risk laboratory/workshop environment where you will be required to follow and enforce safety procedures.
- Actively contribute to continuous improvement strategies.
- Implement, adhere to and promote relevant Work Health and Safety policies/guidelines, University Environmental Sustainability and waste management guidelines/policy and carry out any responsibilities outlined in Safety Management Plans and H&S audit recommendations.
- Take responsibility for team members within a particular area of work for the management and recording of H&S systems and procedures.

- Keep abreast of all changes, and impending changes, to H&S legislation and provide guidance within the institution with the interpretation of such into working policy and practice.

### **Pastoral Care and Welfare**

- Show sensitivity to those who may need help or, in extreme circumstances are showing signs of obvious distress – initiating appropriate action by involving relevant people.
- Provide pastoral care and guidance where standard procedures do not always exist; following standard welfare procedures for the University where they do exist; maintaining confidentiality; building trust; judging when to listen, when to give advice or guidance and when to refer the individual for professional help.
- Aware of the support networks for both themselves and their team/the individual.
- Encourage and promote behaviour consistent with University's values and standards, equality and diversity standards and guidance, and create a positive work environment.

### **Personal and Team Development**

- Proactive personal and professional development including completion of mandatory training, skills courses and specialist training.
- Encourage development activity according to the needs of the individual or group; identify current capabilities and future needs; define the performance standards required; identify appropriate developmental activity; assess the application of learning; and give feedback and guidance on overall performance.

### **Knowledge and Experience**

- Apply a breadth and depth of experience showing full working knowledge and proficiency of their own area of expertise.
- Act as a point of reference to others.
- Demonstrate continuous specialist development, acquiring and refining skills and expertise in new or related areas through undertaking and encouraging internal and external development activity.

**This job description summarises the main duties and accountabilities of the post and is not comprehensive. There is a clear expectation that the post-holder will support other areas of Technical Services and will undertake other duties of similar level and responsibility.**

### **Person Specification**

<b>Competency</b>	<b>Essential</b>	<b>Desirable</b>
Attainments/Qualifications	Be an internationally recognised authority in nonlinear optical spectroscopy.  PhD or equivalent qualification / experience in a related field of study.	Have a track record of the application of femtosecond and/or picosecond lasers for application in coherent Raman scattering microscopy.
Skills and Understanding	Experience in the development of nonlinear optical spectroscopy and associated instrumentation.  Possess sufficient specialist knowledge in the discipline to develop research programmes and methodologies.  Record of research output in nationally recognised publications.  Familiarity with a range of laboratory technologies including	Record of research output in internationally leading journals that relates to the scientific aims of the CONTRAST project

	<p>lasers, optics, electrical measurement and instrumentation.</p> <p>Programming skills applied to instrument control and data analysis.</p> <p>Excellent written and verbal communication skills.</p>	
Prior Experience	<p>Experience of managing research projects and working with academic research teams that include PhD students, postdoctoral workers, and permanent academic staff.</p> <p>Evidence of successful collaboration with internal and external groups.</p>	
Behavioural Characteristics		
Circumstances		

**Terms & Conditions**

Our Terms and Conditions of Employment can be viewed [here](#).

**Further Information**

Please see our [website](#) for further information on working at the University of Exeter.