Senior Particle Scientist

Department
Strathclyde Institute of Pharmacy and Biomedical Sciences
(www.strath.ac.uk/science/strathclydeinstituteofpharmacybiomedicalsciences/)

Faculty
Faculty of Science (www.strath.ac.uk/science/)

Staff Category
Technical Services

Reports To
Senior Technical Programme Manager

Salary Range:
£45,585 - £56,021

FTE
1 (35 hours/week)

Reference No
557442

Grade:
8

Contract Type:
Open Contract

Closing Date
02/10/2023

Job Advert

The Centre for Continuous Manufacturing and Advanced Crystallisation (CMAC) is a world-class centre of excellence for medicines manufacturing research, training and translation. Working in partnership with industry, CMAC’s goal is to transform the development and manufacture of medicines. Our portfolio is designed around four key pillars to deliver: high quality manufacturing research; the workforce of the future through skills development and training; effective translation of research into industry and, to continue to develop our world leading facilities and Lab of the Future infrastructure. Further details can be found in our 2021-2026 Strategy (www.cmac.ac.uk).

CMAC are now seeking to grow its National Facility team providing operational and technical support for our infrastructure, world-class instrumentation and manufacturing research facilities to create an environment that facilitates collaboration across academics, researchers and industry. This is an exciting opportunity to join a dedicated team that works across a varied and complex equipment base.

Applications are invited for a highly motivated Senior Particle Scientist who has experience in the field of crystallisation and particle engineering with relevant analytical characterisation and process modelling skills. It is preferable to have obtained this experience in the pharmaceutical or other particle science driven sectors.

The main duties of the post will be the operational execution of projects using specialist experimental equipment associated with continuous operation and pharmaceutical crystallisation where required. Prior knowledge in these areas is expected. Another key element of the role would be to support the general operation of the CMAC Facility. Housing a comprehensive suite of continuous processing equipment, monitoring and control systems and off-line characterisation capabilities, there are a wide range of day-to-day activities required in order to support efficient operation. Furthermore, candidates will maintain an exemplary environment in terms of health and safety throughout the Facility.

The successful candidate will have excellent written and verbal communication skills, the ability to keep accurate records through our existing electronic lab notebook system and follow best practice laboratory and reporting procedures will be essential. The post-holder should have problem solving abilities, demonstrating innovation and creativity in dealing with research challenges.

This is an exciting and challenging position which will provide an ambitious and committed candidate with the opportunity to broaden their knowledge within a multidisciplinary environment working on ambitious collaborative projects at the academia-industry interface to deliver real impact.
## Job Description

### Brief Outline of Job:

To take on the scientific lead for the delivery of National Facility projects in the subject area of continuous primary processing and particle engineering. A key element of this role is to work directly with external customers to deliver the project objectives and to transfer fundamental knowledge back to the client. The role holder will be working on multiple projects simultaneously and report progress to the Senior Programme Manager as required.

They will be required to manage and supervise a small team of technicians responsible for experimental execution and be able to work in a matrix-style environment with other functions within CMAC to ensure the timely delivery of the project portfolio.

As a senior process engineer, the holder will require significant experience in the operation, troubleshooting, maintenance, and continuous primary processing equipment training. In-depth knowledge across multiple platforms will be required and where applicable. The post-holder will require scientific curiosity to learn new techniques, explore new innovations and how to implement these to solve problems.

An essential part of the role will be to maintain accurate records of experimental activities and take an active role in managing health and safety throughout the CMAC laboratories within the Technology Innovation Centre. The holder should have excellent organisational skills, initiative and the ability to pay close attention to detail.

### Main Activities/Responsibilities:

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<tr>
<td>1.</td>
<td>Act as project lead for processing projects within the National Facility. Working with the Technical Project Manager providing scientific and technical expertise to support the development and delivery of industrial projects in the area of advanced crystallisation, continuous processing platforms and novel particle engineering methods.</td>
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<td>2.</td>
<td>Liaise directly with internal and external collaborators providing experimental results, expert project support, feedback and suitable reports within agreed timescales. Manage short to mid-range projects, seeking additional analytical support from colleagues where appropriate.</td>
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<td>3.</td>
<td>Contribute to the preparation of project proposals, corresponding directly with internal and external service-users and working with the National Facility Technical Project Manager and Business Development Manager to define project scopes and the design and implement projects as a whole or part of larger projects. Take an active role in Business Development relating to the primary processing theme within the National Facility.</td>
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<td>4.</td>
<td>Plan and manage own work effectively, considering low priority tasks vs strategic projects that are core to the National Facility business case.</td>
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<td>5.</td>
<td>Develop a comprehensive understanding of the continuous processing equipment to ensure that CMAC can utilise these unique platforms to benefit all ongoing and future industry and academic programs.</td>
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<td>6.</td>
<td>Responsible for the installation, operation, maintenance and training of these systems to provide continuity of use and translation to the wider community. Develop standard operating procedures, methods and reporting templates for a range of specialised process equipment, including but not limited to continuous crystallisation, filtration, drying and milling equipment.</td>
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<td>7.</td>
<td>Identify technology gaps and assess potential technology solutions for continuous manufacturing and advanced crystallisation.</td>
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<td>8.</td>
<td>Advise CMAC Technical Operations Manager on the purchase of capital equipment to further the capabilities of the national facility.</td>
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<td>9.</td>
<td>Take on-line management responsibilities of technician(s) working in the National Facility processing team. Supervise and manage technician workload and act as a mentor to facilitate their progression.</td>
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<td>10.</td>
<td>Support the implementation of robust laboratory practices, local rules and adherence to the University’s Health and Safety Policy.</td>
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<td>11.</td>
<td>Any other duties commensurate with the grade of the post to facilitate the operation of the National Facility.</td>
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<td>12.</td>
<td>Engage in continuous professional development.</td>
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Person Specification

Educational and/or Professional Qualifications
(E=Essential, i.e. a candidate must meet all essential criteria to be considered for selection, D=Desirable)

E1 HNC/HND/Degree in a relevant subject (Chemistry, Chemical Engineering, Pharmacy or related discipline).

D1 Membership of relevant chartered/professional body.

Experience

E2 Relevant working experience at graduate level or above in process development.

E3 Knowledge of crystallisation development, in-situ process analytical technology and characterisation techniques.

E4 Experience of investigating dynamic processes e.g. developing statistical or mechanistic models from experimental data.

E5 Proven expertise in continuous processing and crystallisation of mainly pharmaceutically relevant materials.

E6 Experience in safety in relation to working with chemicals and chemical processes in the University environment. Excellent awareness of safe working practices and safety regulations, e.g. COSSH, DSEAR and Risk Assessment.

D2 Experience or knowledge of the challenges faced in an industrial environment.

D3 Experience in scientific equipment installation, commissioning and use.

Job Related Skills and Achievements

E7 Ability to manage multidisciplinary projects and ensure timely and effective delivery of project objectives and outputs.

E8 Ability to plan and organise workload, including the ability to supervise and delegate work.

E9 Knowledge of data management policies and use of data or information management systems within the context of research.

E10 Ability to interact with a range of stakeholders from industry and academia.

D4 A digitally aware mindset with a track record of quantitative data analysis and/or application of data sciences.

D5 Ability to demonstrate problem solving in a laboratory environment.

Personal Attributes

E11 Excellent interpersonal and communication skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.

E12 Ability to work independently or as part of a team with the ability to lead teams.

E13 Excellent written and oral communication skills.

D6 Scientific curiosity to learn new techniques, explore new innovations and their application to solve problems.

Application Procedure

Applicants are required to complete an application form including the name of three referees who will be contacted without further permission, unless you indicate that you would prefer otherwise. Applicants should also submit a Curriculum Vitae and a covering letter detailing the knowledge, skills and experience you think make you the right candidate for the job. Applicants should also complete the Equal Opportunities Monitoring Form.

Other Information

Further information on the application process and working at Strathclyde can be found on our website (http://www.strath.ac.uk/hr/workforus).
Informal enquiries about the post can be directed to Kenneth Smith, Senior Programme Manager (kenneth.smith@strath.ac.uk).

**Conditions of Employment**

Conditions of employment relating to the Technical Services staff category can be found at: [Conditions of Employment](#).

**Rewards and Benefits**

Our staff have access to a wide range of outstanding benefits that include financial rewards, family friendly and wellbeing benefits and career development opportunities, details of which can be found [here](#).

**Pre-employment health screening**

An offer of appointment will be subject to a medical assessment by Occupational Health. An individual who accepts an offer of employment must complete a confidential medical questionnaire and forward it to the Occupational Health Nurse within 5 days of receipt. If further information is required the individual may be contacted by the OHN or a Medical Advisor and a personal appointment with the individual may be arranged. An unconditional contract of employment will not be issued until Human Resources receives confirmation that applicant is fit to undertake the duties of the post.

**Probation**

Where applicable, the successful applicant will be required to serve a 12 month probationary period.

**Pension**

The successful applicant will be eligible to join the Universities’ Superannuation Scheme. Further information regarding this scheme is available from Payroll and Pensions.

**Relocation**

Where applicable, the University offers a relocation package to support new employees who meet the eligibility criteria. The relocation package is offered as a contribution towards costs incurred, and is designed to be flexible, allowing staff to use the financial support available in the way that will be most helpful to them. Further details are outlined in the Relocation Policy.

**Interviews**

Formal interviews for this post will be held in October 2023.

**Equality and Diversity**

The University of Strathclyde is a socially progressive institution that strives to ensure equality of opportunity and celebrates the diversity of its student and staff community. Strathclyde is people-oriented and collaborative, offering a supportive and flexible working culture with a deep commitment to our equality, diversity and inclusion charters, initiatives, groups and networks.

We strongly encourage applications from Black, Asian and minority ethnicity, women, LGBT+, and disabled candidates and candidates from lower socio-economic groups and care-experienced backgrounds.

**University Values**

The University’s Values capture what we’re all about: who we are, what we believe in and what we stand for. [Our Values](#) have been derived from how we act and how we expect to be treated as part of Strathclyde.
1. GENERAL CONDITIONS

Members of staff are subject to the Charter and Statutes and the Ordinances and Regulations of the University, published in the Calendar, and to any amendments or additions thereto approved by the University Court and, in the case of the Charter and Statutes, the Privy Council. Staff are also expected to familiarise themselves with, and adhere to, general University policies and procedures, as published on University web pages.

The University Court recognises UNITE as the sole body with which it will negotiate and consult on all collective issues concerned with the terms and conditions of employment of Technical Services staff. Such terms and conditions may be varied by the University Court after negotiation and consultation with UNITE.

Each member of staff is responsible for the proper performance of allocated duties to the person or persons specified in the member of staff’s letter of appointment and any accompanying papers. Members of staff may not accept outside paid work including personal consultancies without the permission of the University, which will not be unreasonably withheld.

The University is committed to ensuring that its business is conducted in an open and transparent manner and will take all appropriate steps to address risks of bribery or corruption. Members of staff are required at all times to act honestly and with integrity and to safeguard the resources for which they are responsible. The University has in place a robust Public Interest Disclosure (Whistleblowing) Policy to enable concerns to be brought to its attention. This is available at www.strath.ac.uk/publicinterestdisclosure. Other relevant policies, e.g. Fraud Prevention and Conflicts of Interests, can also be found on the University’s website.

Any member of staff may at any time be exposed to commercially sensitive information, information related to potentially valuable intellectual property or information which may otherwise be of a confidential nature. This information, which could be found anywhere in the University, may be written or disclosed orally, can include information of a commercial or technical nature, and may be owned by the University or by third parties. The University requires all employees to keep any such information confidential in the first instance and not disclose, publish or otherwise disseminate it without prior consent of the University. Such confidentiality obligations are commonplace and in the commercial interests of the University. When in doubt advice should always be sought from Research and Knowledge Exchange Services prior to disclosure.

The University operates probationary periods for new staff, the duration of which will be specified in individual letters of appointment. The normal probation period for posts in this staff category is 9 months for grades 6 and 7 and 12 months for grade 8. Further guidance on probationary procedures is published at http://www.strath.ac.uk/staff/policies/hr/.

Further information on the terms and conditions specified in this document and other staffing policies and procedures can also be found at www.strath.ac.uk/hr.

2. SALARY

Appointments are made at an appropriate salary point on the University’s grading structure, with initial placing determined according to qualifications and experience. Increments are paid to staff on 1 August each year. Where the employee has a minimum of 6 full months of service at the appointed grade, allowing progression to the next point on the salary scale until the top guaranteed point of the scale is reached.

Arrangements in relation to overtime, additional hours, non-standards and on-call working are published at www.strath.ac.uk/staff/policies/hr.

Salaries are paid directly to staff members nominated bank account, normally on the second last working day of the month.

3. HOURS OF WORK

The normal working week is 35 hours. Unless otherwise indicated in an individual’s letter of appointment, the normal hours are 9.00am to 5.00pm Monday to Friday with a one hour lunch break. Certain members of staff may be required to work some hours outwith this normal pattern and this should be agreed locally. Nonetheless, operational requirements vary significantly across the University and therefore, where local circumstances dictate, reasonable variation may be adopted dependant upon operational needs. In such situations your Head of Department/School/equivalent will discuss with you the alternative arrangements that will apply.

Overtime rates do not apply to staff grades 6 and above. Where a Head of Department/School/equivalent requests additional work, above the standard working week to meet the particular requirements of the Department, equivalent time off in lieu may be granted by prior agreement.

4. HOLIDAYS

Annual leave entitlement is 31 days per year to be taken by agreement with the line manager. For staff members working on a part-time basis, holidays will be calculated on a pro-rata basis.

In addition to annual leave there is an entitlement to eleven public holidays per year which should be taken on days that the University is closed for this purpose. The University presently closes for four additional days over the Christmas and New Year period. These additional days count against the annual leave entitlement.

For staff members working on a part-time basis, public holiday entitlement will be calculated on a pro-rata basis.

Annual leave and public holiday entitlements should be taken in the leave year to which they relate. Up to five days leave can be carried forward into the new leave year subject to line management agreement. In exceptional circumstances, Heads of Department/School/equivalent may approve carry forward of accrued annual leave in excess of five days.

The University’s expectation is that staff take all accrued holidays prior to their termination date. If staff have exceeded their entitlement the University will deduct an equivalent number of days pay from final salary payments.
5. SICKNESS ABSENCE

During any period of absence through illness or injury provided the appropriate notification and certification procedures have been followed the University will pay a member of staff (having taken account of the aggregate of all periods of absence due to illness during the twelve months immediately preceding the first day of the current absence) as follows:

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<tr>
<th>Period of Continuous Employment at start of absence from work</th>
<th>Full Pay</th>
<th>Half Pay</th>
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<tr>
<td>Less than 1 year</td>
<td>1 month</td>
<td>1 month</td>
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<tr>
<td>1 year but less than 2 years</td>
<td>2 months</td>
<td>2 months</td>
</tr>
<tr>
<td>2 years but less than 3 years</td>
<td>4 months</td>
<td>4 months</td>
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<tr>
<td>3 years but less than 5 years</td>
<td>5 months</td>
<td>5 months</td>
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<tr>
<td>5 years or more</td>
<td>6 months</td>
<td>6 months</td>
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In order to manage the University's sick pay scheme the University requires to maintain sickness absence records on individual members of staff. When making payments after the expiry of statutory sick pay the University will deduct an amount equivalent to any benefit normally payable by the Department of Work and Pensions. For full details on the general University policy in this area please refer to the Sickness Absence Management Policy at www.strath.ac.uk/staff/policies/hr.

6. PENSIONS

If you are under age 75 at the date your appointment commences you will automatically become a member of the pension scheme operated by the University — the Universities Superannuation Scheme (USS). You will be admitted to the career revalued benefits scheme called the USS Retirement Income Builder; the contribution rate that currently applies is 9.8% of pensionable salary. A threshold applies to the maximum salary that counts towards the USS Retirement Income Builder. The current threshold from 1 April 2023 is £41,004 per year. Contributions based on salary above the monthly equivalent rate of the threshold are paid to the defined contribution section of the scheme called the USS Investment Builder. Please use the following link to access information, including the USS Member Guide: https://www.uss.co.uk/for-members/you-re-a-new-jointer. The scheme booklet is called 'Your Guide to the Universities Superannuation Scheme'.

The University operates a salary exchange arrangement, Pensions Plus, for members of the USS. Pensions Plus enables pension contributions to be made in a manner so that both employees and the University can benefit from available National Insurance Contribution savings. You will be automatically included in Pensions Plus, provided it does not adversely affect your take-home pay or your ability to claim certain state benefits. If your earnings fall below the Pension Plus pay protection limit you will be opted out of Pension Plus. This will not affect your membership of the USS.

New members of staff may opt out of USS within three months of taking up appointment and will then be treated as if they had never been a member of the scheme. After three months members of staff who wish to withdraw from USS during their employment will be required to give a minimum of 28 days’ notice in writing to the University. Any member of staff who wishes to opt out should contact the Pensions Section, Finance, in the first instance (pensions@strath.ac.uk). Please note that if you are a member of Pensions Plus and withdraw from USS with less than two years of membership, or cease employment with the University and have less than two years of USS membership, the option of a refund of pension contributions will not be available to you. Instead, USS must provide you with a pension benefit that is payable from your Normal Pension Age. Regardless of whether you participate in Pensions Plus, if you are a member of the pension scheme for two years or more you are not entitled to a refund of pension contributions on leaving the scheme, you will be entitled to a pension benefit.

The University reserves the right to alter or withdraw Pensions Plus as it sees fit or as required to comply with legislative changes. Withdrawal or amendment of Pensions Plus will not affect your membership of USS. If you do not wish to participate in Pensions Plus but wish to remain in the pension scheme please contact the Pensions Team who will provide you with a non-participation form.

Information regarding pension scheme membership can be found on the Pensions pages of the University’s website. Full information regarding USS can be found on the USS website — www.uss.co.uk

7. PLACE OF WORK AND RESIDENCE

Members of staff will be based on the John Anderson Campus, unless otherwise stated in the letter of appointment. The Department/School in which the post is initially placed will be specified in the letter of appointment although there will be an expectation to work at such other places as required in the course of employment.

If the need arises for members of staff to work outside the UK for a period (or periods) of more than one month then such arrangements will be subject to mutual agreement. Members of staff would then be provided with a statement in advance setting out the terms covering such periods of employment.

The University does not normally place specific restrictions upon the place of residence of members of staff. All staff are, however, expected to reside in a location which is compatible with the satisfactory fulfilment of all the duties associated with their appointment.

8. DISCIPLINARY AND GRIEVANCE PROCEDURES

Further information on the University’s disciplinary and grievance procedure can also be found at www.strath.ac.uk/policies/hr or on request from Human Resources.

9. NOTICE AND TERMINATION

The employment of a member of staff is terminable by at least 3 months’ notice, in writing, on either side, except during the probationary period when notice is one month. If notice is being given by a member of staff earlier release may be granted if this can be arranged without detriment to the work of the department or area. If the appointment is for a fixed term period it will expire at the end of the period without the necessity for notice. Fixed term contracts may be terminated by either party short of the expiry date by the serving of one month’s notice in writing. The University is not obliged to continue a fixed term appointment beyond the specified employment period.

Revised April 2023