

Academically Advanced Socially Progressive

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Professor of Digital Pharmaceutical Material Design

Department	SIPBS/CMAC		
Faculty	Faculty of Science (www.strath.ac.uk/science/)		
Staff Category	Academic		
Reports To	Head of Department/Institute	Grade	Professorial
Salary Range	Salary commensurate with experience and standing	Contract Type	Open Contract
Working Arrangements	Hybrid. The standard requirement across the University is that at least three days per week (based on IFTE) will be spent working on-site (with flexibility as appropriate).		
Work Location	Glasgow, UK		



Job Advert

Prestigious Global Talent Fund Opportunity

The University of Strathclyde has been awarded significant funding by UK Research and Innovation's Global Talent Fund to recruit leading international researchers in areas of national and global strategic importance. As one of only 12 UK institutions to secure this highly prestigious investment, Strathclyde is uniquely positioned to accelerate its world-class strengths at the intersection of research excellence, industry collaboration and societal impact.

This landmark funding underpins the appointment of a new Professor of Digital Pharmaceutical Material Design — a career-defining opportunity to shape the global agenda for digital innovation in pharmaceutical materials. In this role, you will lead an internationally acclaimed research programme focused on the digital design of materials for medicines development and manufacturing. You will drive innovation through Strathclyde's CMAC Future Manufacturing Research Hub, a strategic centre within the University's Technology and Innovation Zone and the Glasgow City Innovation District.

We seek to appoint a **Professor of Digital pharmaceutical material design** to join the academic team in CMAC and develop and lead new scientific research programmes aligned to the Centre's strategic programme to transform the ways that medicines are designed and made.

CMAC is a world leading centre for medicines development and manufacturing research, co-created with industry to address a shared vision to transform the way medicines are designed and produced. The centre's programme lies at the intersection of the strategically important areas of life sciences, AI and advanced manufacturing and is supported by a unique industrial consortium comprising nine large global pharma manufacturers (AZ, Roche, Takeda, Lilly, UCB, Chiesi, Shionogi, Pfizer and Sanofi), leading CDMOs (Lonza, Ajinomoto) and over 20 process and digital technology vendors (e.g. Siemens, Applied Materials, AWL, Huxley Bertram, Fette, Technobis and others).

The industry demand-led research programme is delivered across four main pillars spanning research, training and skills, technology & infrastructure and translation to industry and is supported by an outstanding portfolio of funded programmes (EPSRC CDT in Cyber-physical Systems for Medicines Development and Manufacture; EPSRC MediForge Industry 5.0 Manufacturing Hub for a Sustainable Future; Made Smarter Digital Medicines Manufacturing Centre; EPSRC Digital Design and Manufacturing of Amorphous Pharmaceuticals). In addition, the centre houses a dedicated team supporting applied research supporting knowledge exchange with partners and is also benefitting from over £16M in direct capital investment via UK RPIF Net Zero and Round 7 and University support to ensure researchers have access to state of the art facilities. This includes investment in extensive computational and data infrastructure to support our digital medicines manufacturing programme. This vibrant research, development and innovation ecosystem supports a world class multidisciplinary engineering and physical sciences team that spans expertise in pharmaceutical materials, advanced process engineering, data science, optimisation, green chemistry, analytical science, AI, robotics and automation.

With the recent growth in the funded programme and industry membership, we have a pressing need to grow our academic team and build on the excellent track record of nurturing talent within a dynamic research environment, well supported with world class facilities, academic and industrial collaborations, funding and researchers. Building on the strength of our crystal and particle engineering, amorphous and formulation expertise and the emerging capabilities of high performance computing, AI and autonomous material discovery, there remain significant research challenges to develop a comprehensive digital platform to meet industry's and patients' needs for better performing, sustainable materials for use in pharmaceutical systems.

This post complements our existing academic team and will provide leadership to emerging areas of digital design applied to materials discovery, development and manufacture. In addition to having active support to develop your research funding portfolio from research council, industry and other sources, you will have the opportunity to engage in strategic CMAC collaborative initiatives and contribute to high impact multi-disciplinary research.

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Job Description

Brief Outline of Job:

As an acknowledged expert and leader in digital approaches for sustainable materials discovery, development and design: to direct an internationally acclaimed research programme in digital design of materials for applications across medicines development and manufacturing; to oversee and deliver educational curricula including CMAC's Centre for Doctoral Training in Cyberphysical Systems for Medicines Development and Manufacturing (CEDAR) and set appropriate academic standards; to lead the development of knowledge exchange activities; to provide academic leadership and contribute at a strategic level to the work of the CMAC Centre as well as SIPBS, Faculty and University.

Main Activities/Responsibilities:

1. Manage significant activities and resources and provide leadership, support and direction to academic/professional staff.
2. Provide research leadership within CMAC through identifying, developing and leading significant research directions and projects in sustainable digital materials design, working collaboratively with colleagues and teams where appropriate to drive scale and impact.
3. Lead an internationally acclaimed programme of research and disseminating results through regular and sustained publications in high impact journals, books and conference proceedings.
4. Secure substantial research grant funding and attract income through knowledge exchange activities.
5. Oversee the design and delivery of educational degree curricula and playing a lead role in the development of educational strategy and operational standards.
6. Support CMAC's industry engagement and translation to industry initiatives providing academic leadership the development of knowledge exchange activities and promote public engagement in your specialist field. For example, establishing research and/or educational links with industry and influencing public policy and the professions at national and international level.
7. Engage in, and where appropriate set the agenda in, national and international academic debates and within professional institutes, learned/practitioner societies and governmental committees.
8. Contribute, at a strategic level, to the work of CMAC as a senior academic member of the CMAC Executive Group and participation in key research and/or operational committees.
9. Engage in continuous professional development.

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)

	Essential/ Desirable	Assessment Method
E1 Good honours degree and PhD (or equivalent) in appropriate discipline/s.	Essential	Application/CV
D1 Membership of relevant Chartered/professional bodies (including the Higher Education Academy).	Desirable	Application/CV

Experience

E2 Research interests consistent with the strategic direction of CMAC and the Faculty/University.	Essential	App/CV/ Interview
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E3	An established international reputation as an expert and leader within the field of computational chemistry, materials modelling and simulation, AI and/or other appropriate areas relevant to medicines development and manufacturing.	Essential	Application/CV
E4	Ability to build an internationally leading research group and successfully manage and promote that group's research within an international arena, highlighting innovative methods and approaches.	Essential	Interview
E5	Extensive experience of delivering high quality teaching to undergraduate and postgraduate students and supervision of research students.	Essential	Application/CV
D2	Sustained track record of leading the development and delivery of large and varied educational programmes.	Desirable	Interview
Job Related Skills and Achievements			
E6	An outstanding and inspiring record of achievement in research in molecular and materials modelling and simulation and publication recognised internationally.	Essential	Application/CV
E7	Proven ability to attract substantial research funding over a sustained period.	Essential	Interview
E8	Track record of multi/inter-disciplinary research collaborations and developing external partnerships.	Essential	Interview
E9	An established track record of project, budget and staff management.	Essential	App/CV/ Interview
D3	Established links with industry, learned societies, government and/or relevant Chartered/professional bodies.	Desirable	Interview
Personal Attributes			
E10	Ability to think strategically and contribute at a senior level to the Department/School, Faculty and University.	Essential	Interview
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.	Essential	Interview

Application Procedure

Applicants should visit Strathclyde's vacancies portal and complete an online application form including the name of three referees who will be contacted without further permission, unless you indicate 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 as well as a Research Plan outlining your research strategy for the next 5 years. Applicants should also complete the Equal Opportunities Monitoring Form.

University of Strathclyde encourages the recruitment of disabled and neurodivergent candidates. If you need any reasonable adjustments during the recruitment process, please let us know. You are welcome to submit a paper application or a CV instead of the online application form by contacting us at humanresources@strath.ac.uk.

Interviews

Formal interviews for this post are expected to be held in November 2025.

The University is a Disability Confident Employer and operates a guaranteed interview scheme for disabled candidates who meet all the essential criteria for the post that they are applying for.

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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 Professor Alastair Florence (alastair.florence@strath.ac.uk).

Conditions of Employment

Conditions of employment relating to the Academic staff category can be found at: [Conditions of Employment](#) and [Professorial Zoning](#).

Rewards and Benefits

Our comprehensive benefits package, including generous annual leave, family-friendly benefits, flexible work options, and a commitment to continuous learning, reflects our appreciation for the valuable contributions of our colleagues.

We understand that each staff member has unique priorities and lifestyles, so our diverse benefits ensure there is something for everyone, details of which can be found on our [Rewards and Benefits webpage](#).

- **Financial Rewards:** We provide attractive financial packages, including competitive salaries, relocation support for employees and a generous pension scheme, with university contributions of 14.5%.
- **Work-Life Balance:** We are dedicated to enhancing healthy work-life balance for our employees. We offer generous annual leave, an additional annual leave purchase option, flexible and agile work arrangements.
 - Annual Leave: Generous entitlement of 27 days (Grade 5 and below) or 31 days (Grade 6 and above), in addition to 11 public holidays and University closure days.
 - Additional annual leave purchase: Option to request purchase of 2 weeks' additional annual leave per year.
 - Flexible and agile working: The University provides flexible work arrangements. You can request arrangements that fit you and your role, such as hybrid, part-time, compressed hours, term-time, adjusted shifts, staggered hours. These requests can be made from the first day of your employment.
- **Family Friendly Benefits:** We offer a variety of enhanced family-friendly benefits to support our employees in balancing work and family responsibilities. These include Maternity Leave, Paternity/Maternity Support, Adoption Leave, Shared Parental Leave, Parental Leave, Carers Leave and support, Family Friendly Research & Scholarship Leave, and access to our on-campus nursery.
- **Career Development:** Our commitment to personal development is reflected in initiatives such as professional courses, subsidised educational programs, coaching and mentoring, leadership development, secondment opportunities, and access to our library.
- **Health & Wellbeing:** We place high importance on the safety, wellbeing, and health of all our staff and offer discounted Strathclyde Sport membership, an Employee Assistance Programme (EAP), Occupational Health Service, and Cycle to Work scheme.
- **Recognition Awards:** At Strathclyde, we place a strong emphasis on acknowledging and rewarding our staff's commitment and exceptional contributions. This is demonstrated through our Long-Service Awards and our Values-based Strathclyde Medals.

PVG Check

This position involves regulated work, making it a legislative requirement that the successful candidate becomes a member of the Protection of Vulnerable Groups Scheme. If appointed, employment with the University will not be confirmed until membership of the Scheme has been received. The successful applicant will be precluded from working with protected groups until that time.

Basic Disclosure

This role requires the satisfactory outcome of a Basic Disclosure Scotland Check. The successful applicant will be asked to carry out a Basic Disclosure Scotland Check (or where based overseas, a Criminal Records Check will be required - details [here](#)). Whether an outcome is satisfactory will be determined by the University.

Pre-Placement Health Screening

If you are offered a job with us, you'll be encouraged to let us know about any disability, medical condition, or neurodivergence you have by completing a confidential pre-placement health questionnaire. Completing the questionnaire is entirely voluntary but by doing so we can put in place the right support and make any reasonable adjustments before you start.

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 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](#).

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+, disabled candidates and candidates from lower socio-economic groups and care-experienced backgrounds.

The University currently holds an Athena Swan **Silver award**, recognising our commitment to advancing women's careers in science, technology, engineering, maths and medicine (STEMM) employment in academia.

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.

In delivering **our People Strategy**, we will contribute, act, and make decisions guided by these values.

- **People-oriented:** committed to our staff and students, providing opportunities, and investing in their development.

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- **Bold:** confident and challenging in what we do, and supportive of embracing appropriate and managed risk in our decision-making.
- **Innovative:** focused on discovering and applying knowledge with impact and encouraging creative thinking and new ideas.
- **Collaborative:** working together, with our colleagues and external partners, with integrity and in an open, respectful way.
- **Ambitious:** for our institution, staff and students as well as supporting the ambitions of our partners.

