

Position Details

Role summary for potential applicants

Advertised Job Title:	OCE Postdoctoral Fellowship: Development of novel polymer chemistry for the production of coatings.
Reference Number:	VIC13/01479
Classification:	CSOF4
Salary Range:	\$81K to \$86K plus up to 15.4% Superannuation
Location:	Materials Science and Engineering Clayton Victoria.
Tenure:	3 years
Relocation Assistance:	<input checked="" type="checkbox"/> May be provided to the successful candidate or <input type="checkbox"/> Not provided
Residency Status:	<input type="checkbox"/> Australian Citizens Only <input type="checkbox"/> Australian Citizens and Permanent Residents Only <input checked="" type="checkbox"/> All Candidates

Role Overview:

CSIRO offers PhD graduates an opportunity to launch their scientific careers through our Office of the Chief Executive (OCE) Postdoctoral Fellowships. Successful applicants will work with leaders in the field of science and receive personal development and learning opportunities.

Applications are invited for a three-year OCE Postdoctoral Fellowship in the development of new coatings for application in material science and biological/biomedical disciplines. The successful candidate will explore new chemistries to make polymers for surface coatings. An emphasis in the project is the identification of monomers that can spontaneously polymerise in aqueous or organic media, under mild conditions. A known example of such a monomer is dopamine. The polymer chemistry of the new monomers will be examined for their ability to polymerise, co-polymerise, coat surfaces and be functionalised post-polymerisation. The coatings will be examined for biological properties such as cell adherence, the ability to allow cell propagation and anti-bacterial activity. Although there will be an initial focus on biological applications, the candidate will be expected to explore uses of the chemistry and coatings within other teams in CSIRO to evaluate their potential in electroactive and other applications. The candidate will have the opportunity to both conduct fundamental science and contribute to the development of commercial applications.

Duties and Key Result Areas:

The Postdoctoral Fellow will be mentored but will be responsible for:

- The exploration, development and characterisation of novel polymers for the production of coatings for the material and life sciences.
- Preparation of coated substrates and working in an interdisciplinary research environment with cell and microbiologists, chemists and material scientists to evaluate the utility of the new materials.
- Work with other team members and provide support and/or supervision of junior staff or students, etc.
- Produce high quality scientific and technical outputs including journal articles, conference papers and presentations, patents and technical reports.
- Develop innovative concepts and ideas for further research.
- Regularly review relevant literature and patents.
- Contribute to the effective functioning of the research team and help deliver upon CSIRO's organisational objectives.
- Participate in CSIRO's postdoctoral training program.

Selection Criteria:

Please note: Under CSIRO policy only applicants who meet all the essential criteria can be appointed

Pre-Requisite:

A PhD, or will shortly satisfy the requirements for a PhD degree, in a relevant scientific discipline.

Owing to the terms of CSIRO Postdoctoral Fellowships, you must not have more than 3 years relevant post doctoral experience.

Essential Criteria:

1. Demonstrated ability to safely conduct innovative research in synthetic organic chemistry, synthetic polymer chemistry, functional materials or surface coatings, preferably for biomedical applications.
2. Demonstrated ability to develop experimental plans and pursue novel research approaches.
3. Demonstrated originality, creativity and innovation in solving problems and introducing new directions and approaches.
4. Ability to work with a broad range of people from varying research backgrounds and evidence of strong oral and written communication skills, including the ability to publish the results of scientific research in scientific journals.
5. Demonstrated ability to work independently under minimal supervision while contributing to overall team performance and proven ability to meet performance deadlines during the course of the project.

Desirable Criteria:

1. Experience in dopamine polymerisations.
2. Experience in surface characterisation techniques (including X-ray photoelectron spectroscopy) and/or cell culturing techniques or evaluation of antibacterial properties of materials.

CSIRO is a values based organisation. In your application and at interview you will need to demonstrate behaviours aligned to our values of:

- Integrity of Excellent Science
- Trust & Respect
- Creative Spirit
- Delivering on Commitments
- Health, Safety & Sustainability

Other Information:

How to Apply: Please apply for this position online at www.csiro.au/careers. You may be asked to provide additional information (online) relevant to the selection criteria. If so, then responding will enhance your application so please take the time to provide relevant succinct answers. Applicants who do not provide the information when requested may not be considered.

If you experience difficulties applying online call 1300 301 509 and someone will be able to assist you. Outside business hours please email: csiro-careers@csiro.au

IMPORTANT: Please upload your resume/curriculum vitae and other documents in MS Word only so they can be converted to PDF before being sent to the Selection Panel. Please note only two documents can be attached to your application.

Referees: If you do not already have the names and contact details of two previous supervisors or academic / professional referees included in your resume/CV please add these before uploading your CV.

Contact: If after reading the selection documentation you require further information please contact --- Richard Evans by email at richard.evans@csiro.au or by phone at 03-9545-2507.

Please do not email your application directly to Richard Evans. Applications received via this method will not be considered.

About CSIRO: Australia is founding its future on science and innovation. Its national science agency, CSIRO is a powerhouse of ideas, technologies and skills for building prosperity, growth, health and sustainability. It serves governments, industries, business and communities across the nation. Find out more! www.csiro.au.

About the Research Group: The group is a multi-disciplinary group with skills in synthetic polymer science, stimuli responsive materials, surface characterisation and design and synthesis of scaffolds and coatings for biomedical applications. Team leaders have published widely in the fields of polymer science, stimuli responsive materials and materials and functional coatings for biology.