*Faculty / Division: Faculty of Engineering*

*School / Unit: Graduate School of Biomedical Engineering*

*Position Level: Level A / B*

*Position Number: 00088282*

*Position Title: Research Associate / Senior Research Associate*

*Date Written: November 2020*

## ORGANISATIONAL ENVIRONMENT

UNSW is currently implementing a ten-year strategy to 2025 and our ambition for the next decade is nothing less than to establish UNSW as Australia’s global university. We aspire to this in the belief that a great university, which is a global leader in discovery, innovation, impact, education and thought leadership, can make an enormous difference to the lives of people in Australia and around the world.

Following extensive consultation in 2015, we identified three strategic priority areas. Firstly, a drive for academic excellence in research and education. Universities are often classified as ‘research intensive’ or ‘teaching intensive’. UNSW is proud to be an exemplar of both. We are amongst a limited group of universities worldwide capable of delivering research excellence alongside the highest quality education on a large scale. Secondly, a passion for social engagement, which improves lives through advancing equality, diversity, open debate and economic progress. Thirdly, a commitment to achieving global impact through sharing our capability in research and education in the highest quality partnerships with institutions in both developed and emerging societies. We regard the interplay of academic excellence, social engagement and global impact as the hallmarks of a great forward-looking 21st century university.

To achieve this ambition, we are attracting the very best academic and professional staff to play leadership roles in our organisation.

## Values in Action: Our UNSW Behaviours

****UNSW recognises the role of employees in driving a high-performance culture. The behavioural expectations for UNSW are below.

Please refer to the UNSW Behavioural Indicators for the expectations of your career level (level A / B).

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| A close up of a logo  Description automatically generated | Delivers high performance and demonstrates service excellence. |
|  | Thinks creatively and develops new ways of working. Initiates and embraces change. |
|  | Works effectively within and across teams. Builds relationships with internal and external stakeholders to deliver on outcomes. |
| A close up of a logo  Description automatically generated | Values individual differences and contributions of all people and promotes inclusion. |
|  | Treats others with dignity and empathy. Communicates with integrity and openness. |

## OVERVIEW OF RELEVANT AREA AND POSITION SUMMARY

The Graduate School of Biomedical Engineering is internationally recognised for its contributions by highly experienced academic staff who offer a high-quality educational experience and dedicated researchers who conduct world-class research and have made astounding breakthroughs. The vision of the Graduate School of Biomedical Engineering is to provide the best research and teaching outcomes relevant to the development of applications in the human health sector to help in the diagnosis, treatment and quality of life of Australians with life-threatening or debilitating diseases and conditions. For further information about the School, please visit <https://www.engineering.unsw.edu.au/biomedical-engineering/>

The Research Associate / Senior Research Associate will drive and contribute to research on biomaterials interactions with the endothelial cell surface glycocalyx for vascular applications. These findings have implications for the discovery of effective treatments for vascular complications associated with conditions such as diabetes and cancer. The role will be a part of a dynamic research team at UNSW Sydney and will collaborate with Synedgen Inc (<https://www.synedgen.com/>).

The role of Research Associate / Senior Research Associate reports to Associate Professor Megan Lord and has no direct reports.

## RESPONSIBILITIES

Specific responsibilities for this role include:

**Level A**

* Conduct research in the area of biomaterials interactions with mammalian cells including independently and as part of a team.
* Contribute to the writing of scientific papers and reports for international journals and progress reporting to other researchers and industry partners.
* Assist with the coordination of research activities and actively contribute to research outputs to meet project milestones.
* Contribute to the preparation of research proposal submissions to funding bodies and actively seek collaboration with industry partners as appropriate.
* Participate in and/or present at conferences and/or workshops relevant to the project as required.
* Assist with the supervision of research students in the research area where required.
* Cooperate with all health and safety policies and procedures of the university and take all reasonable care to ensure that your actions or omissions do not impact on the health and safety of yourself or others.
* Develop a culture of continuous improvement by promoting pursuit of excellence in all laboratory practices.

**Level B (in addition to the above)**

* More significant contributions to the project and lead areas of the project where the opportunity arises;
* Supervision of PhD and research students;
* Create a scholarly impact in the discipline which is recognised by peers in advancement of disciplinary knowledge;
* Achieve a citation rate or proportion of research outputs in most prestigious outlets (e.g. A/A\* or equivalent) in line with discipline and leading universities.
* Participate in the definition of research directions and actively contribute to the coordination of research activities and research outputs to meet project milestones.
* Independently seek and apply for external funding opportunities to grow and enhance the research project.

## SELECTION CRITERIA

**Level A:**

* PhD (or soon to be awarded) in Biomedical Engineering, Biophysics, Biochemistry or related discipline.
* Demonstrated experience in cell and extracellular matrix interactions with biomaterials using biochemical, biophysical and/or advanced cell imaging tools.
* Demonstrated ability to conduct independent research with limited supervision.
* Demonstrated track record of publications and conference presentations relative to opportunity.
* Demonstrated ability to work in a team, collaborate across disciplines and build effective relationships.
* Strong interpersonal skills with demonstrated ability to communicate and interact with a diverse range of stakeholders and students.
* Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training.

**Level B:**

In addition to the above, essential criteria for level B include:

* PhD in Biomedical Engineering, Biophysics, Biochemistry or related discipline.
* At least two years of experience in a postdoctoral position conducting research in the field of biomaterials, extracellular matrix biochemistry and/or advanced cell imaging.
* Proven research and publication track record, particularly in high quality peer-reviewed journals
* Demonstrated ability to supervise honours and postgraduate research students.
* Demonstrated expertise in cell and extracellular matrix interactions with biomaterials using biochemical, biophysical and/or advanced cell imaging tools.

*It is not the intention of the position description to limit the scope or accountabilities of the position but to highlight the most important aspects of the position. The aspects mentioned above may be altered in accordance with the changing requirements of the role.*