



Position Description

Postdoctoral Research Fellow/ Research Fellow

School of Agricultural, Environmental and Veterinary Sciences

Faculty of Science and Health

Classification	Level A / B
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Delegation band	Delegations and Authorisations Policy (see Section 3)
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Special conditions	N/A
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Workplace agreement	Charles Sturt University Enterprise Agreement
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Date last reviewed	June 2022
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About Charles Sturt University

Purpose

The Wiradjuri phrase *yindyamarra winhanganha* means the wisdom of respectfully knowing how to live well in a world worth living in. This phrase represents who we are at Charles Sturt University – our ethos. It comes from traditional Indigenous Australian knowledge, but it also speaks to the vision of the university – to develop and spread wisdom to make the world a better place.

Vision

Charles Sturt University is set to undergo a decade of great reform that will see the university characterised by these key elements:

- An uncompromising drive towards excellence in every aspect of its operations
- A far-reaching strategic re-positioning of teaching, learning, research, and innovation
- A cementing of our position as Australia's pre-eminent rural and regional university

The overarching aim is to consolidate our institution so that it is demonstrably more resilient and sustainable by the end of the decade.

Goals

To deliver on our purpose and vision, the university has three key goals:

1. Maintain the university's position in the top five Australian universities for graduate outcomes based on employment and salary
2. Embed a culture of excellence across all aspects of the university's operations
3. Exponential growth in research, development, and innovation income in our chosen areas, delivering high impact outcomes for regional Australia

Our values

Charles Sturt has a proud history and is fortunate to have an outstanding group of diverse, passionate, and engaged people working with us. Our values of insightful, inclusive, impactful, and inspiring guide our behaviours and ways of working to help us achieve our ethos of creating a world worth living in.

Performance measures

In addition to the principal responsibilities all staff are required to contribute to the success of the university strategy including meeting university's eight key performance indicators:

Our Students	<ul style="list-style-type: none">• Commencing progress rate• Student experience
Our Research	<ul style="list-style-type: none">• Research income• Research quality and impact
Our People	<ul style="list-style-type: none">• Engagement• All injury frequency rate
Our Social Responsibility	<ul style="list-style-type: none">• Underlying operating result• Community and partner sentiment



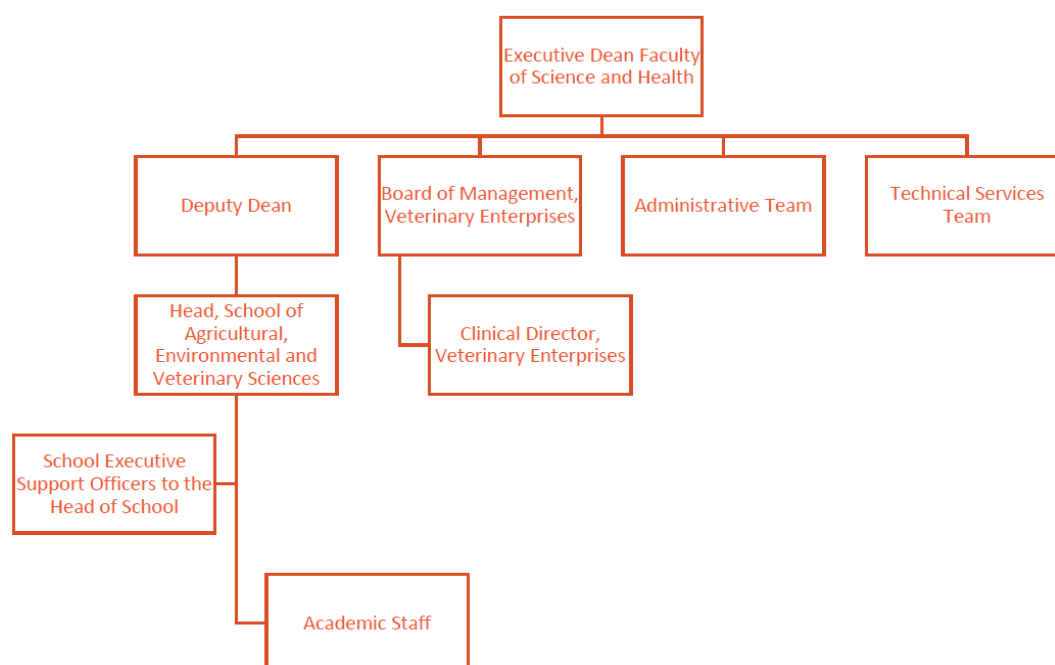
Faculty of Science and Health

School of Agriculture, Environmental and Veterinary Sciences

The Faculty of Science and Health <https://science-health.csu.edu.au/> has more than 9000 students and over 500 staff dedicated to advancing scientific knowledge. It delivers flexible and innovative teaching programs designed to produce job-ready graduates for a diverse range of professions. As a leader in strategic and applied research, the Faculty aims to enhance and extend scientific knowledge, train and educate future researchers as well as provide scientific solutions to current regional, national and global challenges. The staff and students of the Faculty achieve their educational and research goals through ethical practice, professional collaboration, industry involvement and a commitment to continual improvement. The Faculty is involved in teaching and research over a wide range of areas, including: Agricultural and Wine Sciences, Biological Sciences, Veterinary and Animal Sciences, Dentistry, Medical Radiation Science, Pre-Hospital Care, Allied Health, Nursing and Midwifery, and Environmental Sciences.

The School of Agricultural, Environmental and Veterinary Sciences provides more than twenty undergraduate and postgraduate courses within the Faculty of Science and Health. This includes Agricultural Science, Agribusiness Animal Science, Environmental Science and Management, Veterinary Technology and Veterinary Science. The School has substantial infrastructure of a high standard for training undergraduates, including access to on-campus commercial farms in Wagga and Orange. There is also an extensive network of agribusiness and other rural industry collaborators. The School has a strong research profile, including significant numbers of undergraduate honours and higher research degree students. Specific research strengths, potentially relevant to this role, include crop and pasture research, soil science, viticulture, and plant pathology.

Organisational chart





Reporting relationship

This position reports to: Professor of Veterinary Physiology

This position supervises: N/A

Key working relationships

- Internal research partners and teams
- External research partners and teams
- Undergraduate and post graduate research students

Position overview

The Research Fellow will be responsible for the day to day running of research projects focussed on the development of novel technologies and methodologies for disease detection in live animals and offal. Their responsibilities will include establishment of image analysis methodologies to determine disease status and offal health, and the delivery of molecular assays for microorganisms known to be involved in diseases in cattle. The role will require skills and experience in data analysis, molecular biology and quantitative PCR, as well as image analysis for disease identification in tissues from cattle post slaughter. The project is strongly industry-facing and will require liaison with the red meat processing industry in Australia and internationally. A strong interest in molecular diagnostics, imaging modalities for disease identification, and red meat processing technologies is desirable.

Principal responsibilities

1. Assist the Project Lead and other investigators to deliver on required project outcomes;
2. Collect and analyse field and farm-based samples for molecular, microbiological and image analysis;
3. Organise and coordinate collection of field and laboratory samples and manage on-site image analysis equipment;
4. Liaise with collaborators on development of offal scanning technologies and ensure accuracy and security of data samples and research results;
5. Use qualitative and quantitative research methods to evaluate data obtained from laboratory and field trials;
6. Effectively undertake and complete high level data collection and analysis;
7. Effectively and proactively provide project management and support, including reporting;
8. Effectively communicate research findings including presenting at national and international conferences;
9. Communicate effectively with internal and external collaborators, including industry stakeholders and funding bodies;
10. Contribute to the academic activities at the University; including supervision of Honours, Masters and PhD students projects as required;
11. Other duties appropriate to the classification as required by the project supervisor.



Role-specific capabilities

This section comprises capabilities from the Charles Sturt [Capability Framework](#) identified as essential or critical for success in this role.

Innovative	With creativity at our core, be open to new ideas and seek to find better ways.
Apply expertise and technology	Apply, develop and share specialist and detailed technical expertise, understanding other organisational disciplines.
Write and report	Write clearly, succinctly and correctly, convince through writing, avoid jargon, structure information.
Analyse	Analyse information, probe for clarity, produce solutions, make judgements, think systemically.
Plan and organise	Set objectives, plan, establish contingencies, manage time, resources and people, monitor progress.
Follow instructions and procedures	Follow procedures and instructions, time keep, show commitment, keep to safety and legal guidelines.

Physical capabilities

The incumbent may be required to perform the following.

- Work in other environments beyond your base campus, such as other campuses.
- On occasion drive a vehicle distances up to 500km per day within the terms of the university's [Driver Safety Guidelines](#)
- Perform in an accurate and timely manner push/pull, reaching, grasping, fine manipulation tasks, including lifting items up to 10kg.



Selection criteria

Applicants are expected to address the selection criteria when applying for this position.

Essential at Level A

- A. An honours degree or higher; an extended professional degree; a postgraduate diploma appropriate to the relevant discipline area; or equivalent accreditation and standing.
- B. Capacity to undertake, under supervision, teaching and/or research/creative works or professional activity.
- C. Demonstrated experience in molecular diagnostics and bacteriology and equipment and laboratory skills with the willingness to learn new skills.
- D. Demonstrated understanding of the conduct of field and laboratory-based research, including adherence to Occupational Health & Safety regulations and good laboratory practice including the experience in management of and handling blood / tissue sampling from animals.
- E. An understanding of molecular biology research techniques and or image analysis.

Essential at Level B

- A. A doctoral or masters qualification appropriate to the relevant discipline area or equivalent accreditation and standing.
- B. A record of research / creative works or professional activity relevant to the discipline area, which demonstrates a capacity to make an autonomous contribution.
- C. Demonstrated experience in molecular diagnostics and bacteriology and equipment and laboratory skills with the willingness to learn new skills.
- D. Demonstrated understanding of the conduct of field and laboratory-based research, including adherence to Occupational Health & Safety regulations and good laboratory practice including the experience in management of and handling blood / tissue sampling from animals.
- E. An understanding of molecular biology research techniques and or image analysis.

Desirable

- F. Knowledge of ruminant physiology, animal field or laboratory trials.
- G. Experience of veterinary medical imaging and / or meat inspection.
- H. Experience of image analysis and machine learning.

