# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants | |
| Advertised Job Title | Senior Health Statistician |
| Job Reference | 74221 |
| Tenure | Indefinite  Full-time |
| Salary Range | AU$115,605 to AU$135,467 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Parkville, Melbourne, VIC |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates |
| Position reports to the | Team Leader – Health Intelligence |
| Client Focus – Internal | 60% |
| Client Focus – External | 40% |
| Number of Direct Reports | 0 |
| Enquire about this job | Dr Sankalp Khanna  Email: Sankalp.Khanna@csiro.au  Phone: 07 3253 3629 |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

### Role Overview

The role of Research Scientist Staff in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. You will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

The Senior Health Statistician will join the Health Systems Analytics group within the CSIRO Health and Biosecurity Business Unit. The role will take a lead role in developing and applying statistical methodology to solve problems in the health domain. The position will work in collaboration with scientists, statisticians, clinicians, government clients and other health professionals, and contribute statistical expertise to multiple projects in healthcare such as informing and improving health system productivity and efficiency, predictive modelling, informing operational and clinical effectiveness, risk stratification and providing explainable clinical decision support.

The scientific problems that arise in Health Systems Analytics Group are varied and challenging. The group is part of the Australian eHealth Research Centre (AEHRC), CSIRO’s Digital Health Research program and conducts high impact research in the domains of Health Intelligence and Health Implementation Science. The position will join a growing team contributing towards significant research goals and delivering impact on national and international health policy aligned with the AEHRC Health Systems Analytics group’s strategies.

### Duties and Key Result Areas

* Under general direction, use professional expertise, knowledge of other disciplines and research experience and achievement to formulate, develop and complete an approved research program.
* Incorporate innovative approaches to scientific investigations by adapting and/or developing original concepts and ideas for new, existing and further research.
* Advise hospitals and health services on areas where performance and efficiencies could be achieved using statistical approaches.
* Act as a trusted advisor, utilising knowledge of the clients’ business and understanding of their underlying needs.
* Propose, develop, apply and employ innovative theories, statistical tools and techniques for health data analytics projects in predictive modelling, clinical decision support, improving and informing productivity, safety and quality, and driving evidence-based healthcare.
* Develop methodology and/or adapt existing methods in novel and creative ways to meet the group's research objectives.
* Utilise various analytic and statistical methodologies to evaluate, select, interpret and validate data.
* Record study results and interpret the findings in terms of their scientific significance.
* Produce high quality scientific papers suitable for publication in quality journals and for presentation at national and international conferences.
* Lead, coach and supervise staff to ensure experiments are established in accordance with sound research design, within agreed time frames and budget
* Work collaboratively and honestly with internal and external colleagues, clients and partners to develop and progress challenging but realistic research plans for a range of research projects.
* Support and lead research projects and related activity including the negotiation of resource requirements.
* Anticipate industry and/or community needs and market direction through client liaison and networking.
* Identify and adapt quickly to changes in client needs and market directions.
* Communicate research results to clients and the scientific community through oral and written reports and may prepare documentation for patent applications.
* Advise policy makers and inform and transfer knowledge to non-scientific audiences as required.
* Maintain confidentiality when working with commercially sensitive or personal information.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Required Competencies**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. A PhD (or an equivalent combination of qualifications and research experience) in a relevant field such as statistics or applied mathematics coupled with extensive postdoctoral or industrial experience.
2. Demonstrated ability in solving real world scientific problems in the health domain.
3. Demonstrated proficiency with programming languages/packages, such as R and Python, including the ability to programme new analyses, clean and structure data, and develop and validate appropriate models.
4. Experience in developing collaborative research proposals for internal and/or external funding programs such as hospital/university internal funding programs, government RFQs/RFTs, MRFF, NHMRC or CRCs.
5. Demonstrated ability to develop and maintain stakeholder relationships, together with strong written and oral communication skills and the ability to publish results and present to a range of audiences.
6. **The ability to work effectively as a member or leader of a multi-disciplinary, geographically dispersed research team, and carry out independent individual research, to achieve organisational goals.**
7. A strong track record of undertaking original, creative and innovative research by generating and pursuing novel ideas and statistical solutions to scientific research problems.
8. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.

## **Desirable**

1. Previous experience working with clinical data.
2. High level experience in the use and application of generalised linear models, ensemble methods and various exploratory data analysis approaches.
3. Experience with developing and applying machine learning, optimisation or simulation models.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).- https://ielts.com.au/

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We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

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

* 1. People First
  2. Further Together
  3. Making it Real
  4. Trusted

Find out more about CSIRO [Health and Biosecurity](https://www.csiro.au/en/Research/BF) and the [Australian e-Health Research Centre](https://aehrc.com/)