**ORGANISATIONAL ENVIRONMENT**

*Faculty / Division: UNSW Medicine*

*School / Unit: The Kirby Institute*

*Position Level: Level B*

*Position Number: 00048628*

*Position Title: Post-Doctoral Fellow (Text Mining)*

*Date Written: April 2020*

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.

|  |  |
| --- | --- |
| 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

UNSW Medicine is a national leader in learning, teaching and research, with close affiliations to a number of Australia’s finest hospitals, research institutes and health care organisations. With a strong presence at UNSW Kensington campus, the faculty have staff and students in teaching hospitals in Sydney as well as regional and rural areas of NSW including Albury/Wodonga, Wagga Wagga, Coffs Harbour and Port Macquarie.

The Kirby Institute is a leading global research institute dedicated to the prevention and treatment of infectious diseases. Established in 1986 in response to the then emerging HIV epidemic, the Kirby Institute now contributes to knowledge on a broad range of diseases, including viral hepatitis and sexually transmissible infections. Focussing on the coordination of national surveillance programs, population health and epidemiological research, clinical and behavioural research and clinical trials, the Kirby Institute’s research projects are conducted in partnership with communities most affected by epidemics.

The Kirby Institute aims to find ways to control infections, develop new therapies and preventative vaccines, as well as providing critical leadership to decision makers in Australia and internationally on the most effective, efficient and sustainable strategies to address epidemics.

The Justice Health program was formed in 2011 at the Kirby Institute and undertake a broad range of research activities many at the intersection of the public health and criminal justice systems. These include the National Prison Entrants Bloodborne Virus Survey, an examination of the role of traumatic brain injury in subsequent offending behaviour, an intervention involving a pharmacotherapy to reduce offending behaviour in those with histories of violence (including domestic violence), a study of the sexual health and attitudes of Australian prisoners, attitudes of prisoners to research, the link between psychosis and offending behaviour, and a study of an intervention for women perpetrators of violence.

The primary purpose of the Post-Doctoral Fellow is to undertake Text Mining of police event narratives to better understand factors associated with domestic violence through the use of information from the NSW Police’s “Computerised Operational Policing System” (COPS). The position will be responsible for using Text Mining to examine the features of domestic violence events to identify risk factors associated with the perpetrator, victim and the context of the FDV events. The position will be based initially at Parramatta but the analysis of the output from the Text mining will occur at the Kirby Institute.

The position reports to the Professor and Program Head of JHRP and has no direct reports.

## RESPONSIBILITIES

Specific responsibilities for this role include:

* Implement text mining methods to extract information from police events narratives of domestic violence.
* Conduct complex big data research with a variety of methods that will be presented in the form of publications.
* Monitor and maintain data’s security, integrity and availability.
* Liaise with study collaborators and stakeholders throughout Australia including government agencies, community-based organisations, clinicians, and public health practitioners to provide project updates.
* Prepare new funding applications to peak bodies.
* Prepare ethics submissions and annual reports, including budgets and consent forms and study procedure manuals.
* Communicate key findings of analysis with clear, concise and accurately written or verbal reports and presentations at both national and international forums with private and public sector groups or agencies.
* Prepare abstracts and manuscripts for publications and conferences.
* Provide clear, accurate and timely advice to audiences with varying statistical literacy and seniority on the key findings of any analysis, acting as a point of contact on analysis of relevant study data for Kirby Institute staff.
* Assist in course administration and contribute to teaching tutorials as required.
* Perform other duties as requested by your supervisor.
* 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.

## SELECTION CRITERIA

* PhD in public health, epidemiology or text mining. Experience with research and knowledge of issues and behaviours affecting those in contact with the justice system (e.g., substance use and mental illness) will be highly regarded.
* Experience in designing complex text mining applications.
* Natural Language processing skills.
* Able to work with GATE, cTAKES, Prodigy.
* Programming skills in Python and R.
* Background in medical or health informatics.
* Demonstrated experience in data management and analysis in SPSS, SAS or STATA. Experience working with large datasets will be highly regarded.
* Experience working with criminal justice data.
* Excellent verbal and written communication skills with highly developed interpersonal skills and ability to work with staff, students and peers from diverse backgrounds.
* Prior lecturing experience will be highly regarded.
* Strong organisation skills and demonstrated ability to prioritise workload and meet strict deadlines.
* Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training

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.