UNIVERSITY OF OTAGO
ŌTĀKOU WHAKAIHU WAKA

JOB DESCRIPTION

ROLE TITLE: Technical Manager

DEPARTMENT: Microbiology and Immunology

SCHOOL / DIVISION: Biomedical Sciences / Health Sciences

REPORTS TO: Head of Department

DIRECT REPORTS (FTE): Nil

INDIRECT REPORTS (FTE): Nil

1. PRIMARY PURPOSE OF THE ROLE:

The prime functions of this position are to maintain department facilities and equipment to allow research and teaching to continue uninterrupted, and to advise the Head of Department in all matters relating to the building and departmental equipment.

2. ACCOUNTABILITIES:

- To evaluate departmental large equipment needs including new and replacement items.
- To evaluate, remedy or request equipment and building repairs including joint oversight of building security.
- To oversee all the technical aspects of the PC3 facility (a university facility housed within the Microbiology & Immunology Department.).
- Responsibility for matters relating to all laboratory equipment, including computer hardware associated with equipment housed within the building.
- To act as Deputy Health and Safety Officer and Deputy Fire Warden.
- To ensure all equipment is maintained in safe working condition.
- To be on 24hr call for PC3 facility and department building and equipment.

<u>Building</u>

- Liaise and consult with Property Services to request building repairs or minor modifications.
- Organize routine maintenance, repairs to, and replacement of furnishings.
- Advise on large equipment purchasing.
- Carry out all portable electrical testing and auditing of equipment to ensure operating to AS/NZS 3760:2010 In-service safety inspection and testing of electrical equipment.
- Manage the auditing of Departmental space.
- Planning of physical developments and improvements.
- Cleaning - Oversight of external contractor cleaning quality and liaison with property services regarding the standard of cleaning within the department.
- In conjunction with the Compliance Manager, regular cleaning and decontamination of departmental cold and hot rooms.

- Support Compliance Manager in issues pertaining to building security including authorisation of staff and student access to main door and laboratories and operation of a database for temporary access cards.

PC3 High Risk Biological Facility

- On-call 24-hour technical support including specialist PC3 autoclave repair, PC3 laboratory operating control system and alarms; for laboratory environment, security, pressure and air flow.
- Repair equipment in the PC3 lab environment and work in the confines of PC3 lab.
- Management of the HVAC system (primarily ventilation and airflow), pressure control and indicating devices.
- Weekly inspections of the filtration system and replacement of filters.
- Weekly management of technical data from the programmable logic controller so that reports are available for internal IBSC audits and external audits by the Ministry for Primary Industries (MPI).
- Organize annual decontamination of the PC3 laboratory, HEPA filters and ducting.
- Conduct annual testing of emergency shut-down, uninterrupted power supply, alarms, indicating devices and autoclave bursting disc alarm.
- Carry out calibration of laboratory manometers.
- Coordinate calibration and validation of autoclave, CII biological safety cabinet, terminal HEPA integrity testing, laboratory pressure and air-flows.
- Organize planned maintenance of autoclave valves, switches, seals, compressor and steam generator.
- Organize planned maintenance of external air-conditioning unit.
- Electrical testing within the facility to the AS/NZS 3760:2010 In-service safety inspection and testing of electrical equipment.
- Testing of the laboratory containment integrity and decontamination procedures to ensure compliance with MPI regulations.
- Be a member of the PC3 Emergency Response Team i.e. assist on medical emergency evacuation, and biological spill management.
- Provide Department Compliance Manager with all regulatory testing records.
- All work above must be conducted to the requirements of AS/NZS Standard 2243.3:2010 and AS/NZS 2982:2010.

Equipment

- To evaluate departmental large equipment needs, including new and replacement items.
- To evaluate and request equipment repairs and ordering of replacement parts as required including the monitoring of the PC controlled autoclaves.
- Advising on new equipment manufacturing quality and suitability. Supply companies pricing policies and ability to supply provide the necessary technical support.
- Organizing quotations for the purchasing and including any tendering of new and replacement equipment.
- Overseeing installation, commissioning and coding of equipment.
- Maintaining records and inventories including the Department's fixed asset register.
- Keeping relevant general information, equipment manuals and handbooks.
- Provide instruction and oversee correct usage of equipment where appropriate.
- Ensuring care, routine checking and maintenance of equipment. In conjunction with the Compliance Manager, ensure equipment certification is current, including Class II Biological Safety Cabinets and Chemical Fume Hoods.

Specialist Equipment Repair and Maintenance

- Organize annual maintenance to the Tuttnauer Autoclaves.
- Stansted Pressure Cell Homogeniser service, including replacement of hydraulic piston seals, door sensors, cell chamber senor and general maintenance.
- TS Series .75kw Cell Disrupter replacement of all seals and servicing.
- APS media plate pourer adjust and replace drive belts and servicing.
- Due to lack of specialist equipment technicians, be capable of reading technical operating and service manuals and carrying out repair and maintenance on various pieces of existing equipment and that of future purchases.

Deputy Health and Safety Officer and Deputy Fire Warden

- Support the Head Fire Warden including organising emergency evacuations.
- To advise staff and students on all aspects of Health and Safety matters, this includes the implementation of safe working practices and to inform the Department Health and Safety Officer of issues of direct concern to the Department.

3. KEY RELATIONSHIPS:

Internal

- Staff and students within the Department.
- Compliance Manager.
- Finance Associate.
- Head Technician.
- Asset Management Committee.
- Department IT support technician.
- Property Services building manager.

External

- MPI staff.
- External contractors: tradesmen, equipment suppliers, equipment technicians, and equipment safety and registration auditors.
- Sales reps and service providers.

4. QUALIFICATIONS & EXPERIENCE:

Essential

- Tertiary science qualification.
- At least five years relevant experience, or including experience with the operating requirements for physical containment levels 1, 2, and 3.
- Practical specialist experience knowledge required for the PC3 lab role:
  - Autoclave technical experience, preferably with double entry, interlocked door autoclaves that cross laboratory containment barriers.
  - Knowledge of PC3 lab equipment and being able to repair equipment in the PC3 lab environment and work in the confines of PC3 lab.
  - Experience with PC3 laboratory:
    - HVAC systems and programmable logic controllers.
    - decontamination systems.
    - alarm and monitoring systems.

- technical mechanisms, including air-tight dampers, fans, filters and ducting system; preferably with a LabOver PC3 laboratory systems.

Preferred

- Holding an Electrical Limited Certificate is desirable.
- Tuttnauer horizontal autoclave technician training is desirable.

5. TECHNICAL SKILLS & KNOWLEDGE:

Essential

- A practical knowledge of laboratory equipment to enable the assessing for repair and subsequent calibration of equipment.
- An affinity for electronic and mechanical equipment with some ability to interpret plans, diagrams, manuals, workshop manuals.
- A working knowledge of computer cabling, connections and networking as well as audio visual equipment.
- Proven initiative and demonstrable interest in new technologies.
- Ability to perform in a consistent manner, often under pressure or when dealing with complex matters.
- Ability to work to tight deadlines and multi task.
- Ability to communicate with staff and students.
- Ability to operate comfortably within all levels of the University.
- Ability to work individually or as a member of a team.
- Ability to act with discretion when dealing with confidential and or sensitive information.
- Ability to lead a team when dealing with larger projects.
- A strong understanding of and commitment to customer service.
- Proven ability to keep accurate and detailed records.
- Ability to act with discretion when dealing with confidential and/or sensitive data.
- A reasonable level of physical fitness.

6. SPECIAL REQUIREMENTS:

- To be on 24hr call for PC3 facility and department building and equipment.

7. DIRECT BUDGET ACCOUNTABILITY:

- Purchase of all minor equipment including repair (under $10,000) within approved annual budget.
- Administering costs associated with the purchase, maintenance and repair of Department equipment within the Departments approved annual budget (currently approximately $500,000/annum).
- Identifying and advising the HOD on any measures where there is potential for the Department to make savings to general running costs.

8. MĀORI STRATEGIC FRAMEWORK:

Act in a manner consistent with the principles and implications, as well as the University's commitment to the Treaty as articulated in the Māori Strategic Framework.

9. PACIFIC STRATEGIC FRAMEWORK:

Act in a manner consistent with the strategies and goals contained in the University's Pacific Strategic Framework, role-modelling and promoting Pacific values, equity and diversity principles and cultural safety practices.

10. HEALTH & SAFETY:

Act and work in a manner compliant with current health and safety at work legislation and University procedures, frameworks and guidelines. Role model safe behaviour and practices, share the responsibility to prevent harm and contribute to a safe campus and work environment, including raising workplace health and safety concerns for self, students, visitors and other staff.

11. SUSTAINABILITY:

Act in a manner consistent with the University's sustainability commitments; role-modelling sustainable practices, with a particular emphasis on minimising the environmental impact of day-to-day activities.

12. EQUITY AND DIVERSITY:

Act in a manner consistent with the University's commitment to anti-racism and the co-creation of accessible, safe, respectful, and welcoming environments where all students and staff are supported to achieve their full potential.