RÉSUMÉ

Toni Maguire

3/87 Banksia Drive, BRISBANE QLD 4000
☏ 0402 463 755 ✉ tmaguire@gmail.com

Career Objective

Having achieved a high level of competency as an accomplished technical professional over the past 19 years, I am actively pursuing a challenging career opportunity as a Medical Laboratory Scientist at Queensland Health where I can utilise my qualifications and industry experience in NATA/ISO accredited laboratories. Advanced skills in research and development, molecular diagnostics, microbiology diagnostics and commercial manufacturing (microarrays) coupled with proven laboratory experience in PC2 Certified, AQIS Certified, OGTR Certified, NATA Accredited, ISO 15189 Accredited laboratories. Experience in local and international Quality Assurance Programs. I embrace the opportunity to make a valuable contribution whilst involved in delivering culture, serology, molecular virology diagnostic and research services as part of a team within the Public Health Virology laboratory to clinicians, scientific staff, public health staff and external clients in accordance with relevant accredited quality standards.

Tertiary Qualifications

1996 **Doctor of Philosophy (PhD)**
The University of Adelaide

Achievements:
- Australian Post-Graduate Research Award
- International Protea Association Research Scholarship

1992 **Bachelor of Agricultural Science (First Class Honours)**
The University of Adelaide

Key Subjects:
- Chemistry, Biology, Crop Science, Livestock Science, Soil Science (Microbiology), Industry Internship (13 Weeks)

Achievements:
- Received JR Barker Scholarship and RK Morton Scholarship

Key Strengths & Attributes

- Consistently complies with Quality Assurance Programs, including QA practices and performance.
- Ability to apply efficient scientific judgment to undertake complex molecular specific decision making.
- Proven expertise in the design of studies, interpretation of results and preparation of scientific papers.
- Capacity to lead, mentor and guide students, staff and assistant support staff.
- Skilled in assisting in the development of policies, scientific procedures and protocols.
- Supportive and helpful team member, consistently working in a cooperative manner to achieve team objectives.
- Committed to continuous improvement with the ability to identify, develop and implement quality and service improvement activities within a diagnostic laboratory environment.

Technical Skills

- Molecular Biology
- DNA/RNA Extraction
- Protein Extraction
- PCR/Real-time PCR
- Gel Electrophoresis
- Agarose Gels
- Polyacrylamide Gels
- Southern, Northern & Western Analysis
- RAPDs
- RFLPs
- AFLPS
- SSRs
- SNP Analysis
- Molecular Cloning
- Genomic Libraries
- Microsatellite Libraries
- DNA Sequencing
- DNA Sequence Analysis
- Mutation Analysis
- High-throughput Genomics
- Microarray Analysis
- Gene Expression
- Genotyping
- Gene Dosage
- High-throughput Robotics
- Micro Fluidics
- Microarray Manufacture
- Bioinformatics
- Population Genetics
- Cell Biology
- Plant Cell Culture
- Mammalian Cell Culture

Employment History

2014 - Current

THE UNIVERSITY OF QUEENSLAND | www.uq.edu.au
SCHOOL OF VETERINARY SCIENCE
Building 8114, The University of Queensland, Gatton QLD 4343

Scientific Officer - Molecular Microbiology

Organisational Profile:

- The University of Queensland is one of Australia's leading research and teaching institutions. The School of Veterinary Science has full accreditation with both the Australasian Veterinary Boards Council, Royal College of Veterinary Surgeons and the American Veterinary Medical Association.

Key Duties:

- Contribute to diagnostic molecular and microbiology services on clinical sample submissions.
- Develop, validate and execute molecular and other diagnostic tests to support diagnostic, research and teaching missions of the School.
- Liaise with clients on sample submissions and provide technical advice in regards to diagnostic issues.
- Prepare and collate diagnostic sample submission reports including account processing.
- Assist with the preparation of media, reagents, protocols and specimens for diagnostic and teaching purposes.
- Maintain quality controls, stock cultures, accurate and organised records.
- Train, support and assist other university staff in molecular and microbiology techniques and provide technical support to other areas of the diagnostic service as required.
- Provide technical support to research projects including sample analysis and interpretation.
- Assist in the organisation, preparation and administration of undergraduate classes.
- Assist with the teaching of veterinary microbiology and molecular biology to undergraduate students and assist in teaching of laboratory skills in microbiology and molecular biology to post-graduate research students.
- Manage the molecular biology laboratory, responsible for ensuring and overseeing the optimised maintenance of equipment and facilities, consumables and chemical inventory.
- Conduct laboratory safety inductions and provide training on laboratory equipment on a regular basis.

Key Achievements:

- Facilitated effective training in routine diagnostic microbiology methods, including aerobic and anaerobic bacterial culture, bacterial isolation and identification, fungal culture and identification.
- Efficiently prepared diagnostic microbiology reports including database entry and account processing.
- Supported and tutored undergraduate students in microbiology and molecular genetics subjects.
- Prepared and set-up undergraduate practical classes in biology, microbiology and molecular genetics subjects.
- Facilitated effective training for post-graduate research students in molecular biology methods and equipment use.
- Efficiently reviewed the molecular biology laboratory operations and introduced new systems to increase laboratory efficiency and laboratory safety.

2008 - 2013

QUEENSLAND HEALTH | www.health.qld.gov.au
PATHOLOGY QUEENSLAND, CHEMICAL PATHOLOGY
Royal Brisbane and Women's Hospital, Butterfield St, Herston QLD 4029

Supervising Scientist

Organisational Profile:

- Queensland Health is a department of the Government of Queensland that operates and administers the State's public health system. Pathology Queensland is composed of a hierarchical, networked system of 34 laboratories. These laboratories consist of district laboratories in rural hospitals, group laboratories in large regional hospitals and unit base laboratories providing tertiary referral services in the metropolitan teaching hospitals.

Key Duties:

- Provide specialist diagnostic testing and related duties following established accredited protocols and standards in accordance with prescribed professional and ethical standards.
- Apply specialist scientific judgement in the analysis of patient specimens to verify and validate test results and the provision of advice to the clinical unit where appropriate.
- Exercise independent specialist scientific judgement to provide specialist advice to peers/service delivery stakeholders.
- Apply specialist scientific knowledge which re-enforces continuous improvement within the laboratory ensuring all Standard Operating Procedures (SOPs) and worksheets are fit for purpose, validated and meet current best practice.
- Ensure proficient participation in national and international Quality Assurance Programs (QAPs).
- Contribute to scientific research and development activities in the Department.
- Develop, standardise, evaluate or modify procedures, techniques, or tests used in the analysis of patient specimens.
- Operate, calibrate, or maintain equipment used in quantitative or qualitative analysis of patient specimens.
- Prepare submissions for staff and equipment to ensure that the laboratory is appropriately resourced.
- Ensure that the laboratory consistently complies with all relevant legislative, administrative and professional standards to meet NATA/ISO/TGA accreditation/certification requirements.
- Manage and direct the performance and operation of work groups, including staff performance appraisals, competency assessments, staff training and development.

Employment History

Key Achievements:
- Successfully passed two NATA/ISO 15189 inspections in 2009 and 2011.
- Actively participated in national and international Quality Assurance Programs (QAPs).
- Developed and maintained laboratory Standard Operating Procedures (SOPs).
- Developed and validated new molecular genetic tests for clinical use.
- Developed standardised laboratory methods which increased laboratory efficiencies.
- Reviewed and updated clinical comments for medical reporting to general practitioners.
- Successfully secured funding for new equipment through effective funding submission.
- Trained staff in new methods and laboratory processes.

2000 - 2008 **THE UNIVERSITY OF QUEENSLAND | www.imb.uq.edu.au**
INSTITUTE FOR MOLECULAR BIOSCIENCE (IMB)
St Lucia, Brisbane QLD 4072

2004 - 2008 **Research Fellow - SRC Microarray Facility Director**
2000 - 2003 **Research Fellow**

Company Profile:
- The University of Queensland's Institute for Molecular Bioscience (IMB) is one of Asia-Pacific's leading life sciences research institutes. IMB's researchers, postgraduate students and support staff work in partnership with their academic, industry and clinical colleagues around the world to advance knowledge in the institute's 7 impact areas: cancer, pain, childhood diseases, infection & inflammation, diabetes & obesity, agriculture, and clean energy.

Research Fellow - SRC Microarray Facility Director (2004 - 2008)

Key Duties:
- Direct, coordinate, organise and prioritise facility activities in an organised manner.
- Supervise and oversee the optimal manufacture of high quality microarrays.
- Establish and maintain Standard Operating Procedures (SOPs) tailored to specifications.
- Perform Quality Control (QC) testing of microarray production from the facility.
- Supervise the provision of bacterial clones as part of clone curation services.
- Establish collaborative projects involving microarray expression profiling.
- Establish and refine technological advancements in array technology.
- Prepare reports, manuscripts and meeting presentations using excellent written skills.
- Ensure the facility complies with all relevant legislative, administrative and professional standards in order to meet PC2/AQIS/OGTR certification requirements.
- Supervise, mentor and guide technical staff and graduate honours students.

Achievements:
- Successfully manufactured high quality spotted microarrays (Oligo and cDNA).
- Developed and maintained Standard Operating Procedures (SOPs).
- Developed Quality Control and Quality Assurance methods (QC/QA).
- Successfully established collaborative research projects and prepared manuscripts.
- Developed and validated new microarray services.
- Effectively trained staff and students in microarray technology.
- Developed and delivered microarray technology workshops.
- Developed and maintained the microarray facility website.

Research Fellow (2000 - 2003)

Key Duties & Achievements:
- Developed and manufactured microarrays for research use in mammalian blood vessel formation, specifically blood vessel formation in response to hypoxia and growth factors (VEGF A, VEGF B and VEGF E).
- Investigated the transcriptional responses of human and mouse epithelial cells in response to hypoxia and growth factors (VEGF A, VEGF B and VEGF E).
- Developed transcription factor binding assays, cellular differentiation assays.
- Developed high throughput cell-based assays to investigate hypoxia, apoptosis, cell proliferation, and sub-cellular localisation.
- Successfully established collaborative research projects and prepared manuscripts.
- Successfully trained staff and supervised graduate honours students.
- Successfully obtained research grant funding:
  - (i) The University of Queensland Post Doctoral Research Fellowship
  - (ii) The University of Queensland Early Career Researcher Grant
  - (iii) The University of Queensland New Staff Research Start up Fund

Previous Work History

1996 - 2000	**SOUTHERN CROSS UNIVERSITY** Military Road, East Lismore NSW 2480 **Research Officer**

Professional Development

2015	Tutors @UQ Program
2014	General Laboratory Safety (including Biosafety and Chemical Safety Modules)
2012	Franklin Covey Leadership Course
2010	Proteus Leadership Development Workshop
2009	Managing Time and Priorities
2009	Quality Information Systems (QIS2) Advanced Course
2009	RCPA Chemical Pathology Course
2008	Staff Performance Appraisals
2008	How to Deal with Difficult People
2008	Requirements for Working with Biological Material
2007	Academic Staff Supervisors of General Staff
2004	Microsoft Access Stage I and II
2004	Recognition and Development
2002	Research Honours Student Supervision
2001	Transport of Biological Material
2001	Emerging Issues in Postgraduate Supervision
2001	Helping Research Students Negotiate the System
2001	Helping your Research Students Focus and Finish
1998	Certificate in Project Management Training

Publications

- 32 Scientific Articles in Peer Reviewed Journals
- 3 Scientific Book Chapters
- 24 National and International Scientific Conference Presentations

Selected Journal Articles (incl. JCR Impact Factor):

- Srikhanta YN, Dowideit SJ, Edwards JL, Falsetta ML, Wu HJ, Harrison OB, Fox KL, Seib KL, Maguire TL, Wang AH, Maiden MC, Grimmond SM, Apicella MA, Jennings MP (2009) Phasevarions mediate random switching of gene expression in pathogenic Neisseria. PLoS Pathog 5 (4) e1000400. (JCR IF 8.136)
- Seib KL, Wu HJ, Srikhanta YN, Edwards JL, Falsetta ML, Hamilton AJ, Maguire TL, Grimmond SM, Apicella MA, McEwan AG, Jennings MP (2007) Characterization of the OxyR regulon of Neisseria gonorrhoeae. Molecular Microbiology 63 (1) 54-68. (JCR IF 4.961)
- Wu HJ, Seib KL, Srikhanta YN, Kidd SP, Edwards JL, Maguire TL, Grimmond SM, Apicella MA, McEwan AG, Jennings MP (2006) PerR controls Mn-dependent resistance to oxidative stress in Neisseria gonorrhoeae. Molecular Microbiology 60 (2) 401-416. (JCR IF 4.961)
- Hodge D, Coghill E, Keys J, Maguire T, Hartmann B, McDowall A, Weiss M, Grimmond S, Perkins A (2006) A global role for EKLF in definitive and primitive erythropoiesis. Blood 107 (8) 3359-3370. (JCR IF 9.060)
- Perkins AC, Coghill E, Maguire T, Hartmann B, McDowall A, Weiss M, Grimmond S, Keys J, Hodge D (2005) A global role for EKLF in definitive and primitive erythropoiesis. Blood 106 (11) 496A-496A. (JCR IF 9.060)
- Srikhanta YN, Maguire TL, Stacey KJ, Grimmond SM, Jennings MP (2005) The phasevarion: A genetic system controlling coordinated, random switching of expression of multiple genes, Proceedings of the National Academy of Sciences of the USA 102 (15) 5547-5551. (JCR IF 9.737)
- Maguire TL, Peakall R, Saenger P (2002) Comparative analysis of genetic diversity in the mangrove species Avicennia marina (Forsk.) Vierh. (Avicenniaceae) detected by AFLPs and SSRs. Theoretical and Applied Genetics 104 388-398. (JCR IF 3.658)
- Maguire TL, Edwards KJ, Saenger P and Henry R (2000) Characterisation and analysis of microsatellite loci in a mangrove species Avicennia marina (Forsk.) Vierh. (Avicenniaceae). Theoretical and Applied Genetics 101 279-285. (JCR IF 3.658)

Referees Available on Request