



NRL YEAR

2017

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ABOUT NRL

NRL is a non-profit, scientific organisation based in Melbourne, Australia specialising in the maintenance and enhancement of quality of testing for infectious diseases. Originally established in 1985 as part of the Australian Government's HIV/AIDS Strategy, NRL was commissioned to evaluate HIV test kits and adjudicate on the interpretation of HIV test results.

Contracted by the Australian Government's Department of Health and licensed to the code of Good Manufacturing Practice by the Therapeutic Goods Administration (TGA),

NRL continues to support collaborative scientific partners worldwide in the promotion of accurate diagnosis and management of human communicable diseases, including but not limited to HIV, HCV and HTLV.

NRL operates as a division of St Vincent's Institute of Medical Research (SVI), whose mission is to carry out high-quality, biomedical research to improve the health of the community by prevention, detection or better treatment of common diseases. NRL is located at the St Vincent's Hospital campus, which provides unique opportunities to

collaborate with clinicians, researchers and academics, as well as work together on joint campus initiatives such as the HMS Trust Living BioBank.

NRL's mission is to promote the quality of tests and testing of infectious diseases globally.

NRL's scope includes a number of integrated services that support its mission including:

- Highly sophisticated quality assurance programmes including External Quality Assessment Schemes (EQAS) and Quality Control (QC);

- Training and mentorship in laboratory systems with sustainable, self-sufficient outcomes;
- Pre- and post-market evaluation of *in-vitro* diagnostic medical devices (IVDs);
- Patient sample reference testing for HIV, HCV and HTLV;
- TGA-licensed screening of samples collected from blood and tissue donors.

NRL achieves success in delivering these services through collaborations and partnerships with Ministries of Health (MOH), NGOs, participating laboratories, IVD industry and its host institution, SVI.

NRL is designated a World Health Organization (WHO) Collaborating Centre for Diagnostics and Laboratory Support for HIV and AIDS and Other Blood-borne Infections.

www.nrlquality.org.au

DIRECTOR'S REPORT



By the time this 2017 Annual Report is released I will have retired from my position as NRL's Director. In preparing this report, I have had the opportunity to reflect upon the journey that has seen NRL's evolution over the last 27 years. Between 1990 (when I joined NRL) and 2009 I saw NRL's position consolidate in the world of infectious diseases quality assurance under the leadership of my predecessor Associate Professor Dr Elizabeth Dax. A/Prof. Dax left a fertile ground for me to cultivate as NRL's Director post 2009. This 2017 Annual Report showcases NRL's activities and the extent to which they have expanded since NRL's early days.

After many years of hosting a single annual Workshop on Infectious Diseases, NRL introduced an additional annual event in Australia focusing on molecular diagnostics,

and another in Asia that focuses on quality of infectious disease testing. All events have been well attended and have received very positive feedback since their inception in 2015 and 2017 respectively.

In the realm of diagnostic testing, the past several years have seen an expansion in the tissue donation screening undertaken by NRL using both serology and molecular techniques. This followed a major consolidation of testing platforms in use at NRL, which was necessitated by changing government policies around IVDs. The tissue donation sector is highly regulated and NRL is one of a handful of laboratories that hold the required TGA licence for both serology and molecular testing of specimens collected from tissue donors.

From very early in NRL's existence, evaluation of IVDs has been a key competence of

the organisation. After having been contracted by TGA in this capacity for many years, these NRL skills are now utilised extensively by WHO's prequalification of diagnostics (PDx) group to which we provide both desktop and laboratory based evaluations. NRL is considered by WHO and others a highly valued partner in these endeavours.

NRL's QC programme has been a flagship for more than 10 years despite many challenges; 2017 was no exception. In 2017 NRL launched its own range of QConnect™ QC samples. It was a significant exercise to transition from one product manufacturer to another in a highly regulated environment. As challenges arose we did our best to resolve them as quickly as possible and despite the setbacks, the situation was stabilised and a full range of QConnect™ QC samples became and

continues to be available. I am very proud of the achievements of NRL staff in realising this transition under difficult circumstances.

Since I joined NRL it has grown from an organisation of fewer than 10 staff to one of more than 30; it has grown from being a national organisation to one that is highly recognised and respected internationally.

For the last nine years of my 27 year long association with NRL, I had the immense privilege of leading a highly committed team, and while I leave the organisation with some sadness, it is also with the knowledge that it is well positioned to further enhance its role as a global leader in quality assurance of infectious diseases testing.

Susan Best

Services delivered



2810

EQAS subscriptions from 73 countries



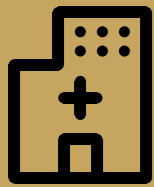
22

EQAS available



1159

EQAS Participants



138

Sites using EDCNet



1053

QConnect Members



21

QConnect QCs available



246,694

Serology and NAT QC Data Points entered into EDCNet



22

Countries using QConnect QC



44

Number of QC Investigation Queries

2017 Highlights

- Human Papillomavirus (HPV) Molecular EQAS was launched and was successfully completed by fourteen participants who perform qualitative detection of HPV
- A Leptospirosis Molecular EQAS was introduced for diagnostic laboratories performing specialist testing for Leptospirosis DNA
- NRL introduced an entire new range of QConnect™ QC samples for NAT and serology testing

OUR IMPACT: NRL QC PROGRAMME PROVIDING PRECISION AND ACCURACY FOR INFECTIOUS DISEASES

The NRL QC Programme is designed to assist the identification of unexpected variation in infectious disease testing, and to identify and resolve the source of variation. In 2016, NRL established partnerships with Exact Diagnostics LLC (Texas, USA) and DiaMEX GmbH (Heidelberg, Germany) for the manufacture of NAT and Serology QConnect™ products, respectively. In 2017, a revised and new range of QConnect™ QC products was launched. NRL played a key role in the scientific development of these QC products to optimise their performance on specific testing platforms and ensure the consistency of reactivity of

new lot numbers over time. As an improvement to the previous range of products, all QConnect™ QC samples were CE marked and registered on the Australian Register of Therapeutic Goods. QConnect™ products were released in stages, beginning in February with the serology multimarker 'Colour' range including QConnect Blue, Red, Yellow, Purple and Orange; each composed of Hepatitis, HIV, HTLV and Syphilis markers. New multimarker QC samples such as HEPR for resolved Hepatitis A, B and E infections; and ToRCHG and ToRCHM for antenatal screening also became available.

The NAT QConnect™ product range released included QConnect™ TriScreen, a multimarker QC sample for HIV RNA, HCV RNA and HBV DNA testing and a number of individual QC samples for donor screening laboratories. Later in 2017, QConnect™ HPV16NAT, HPV18NAT and CTNGNAT became available for laboratories conducting screening for HPV; and *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. NRL acknowledges that with the introduction of the new QConnect™ product range, a temperature outage occurred during an early shipment, which resulted in significant inconvenience for some

customers. The support and patience that was demonstrated by those customers has been greatly appreciated.

With such major changes coming into effect, there has been a significant and positive impact on the volume of data being entered into EDCNet which, as a result, provides a richer dataset both for analysis and peer group comparison which is available in real time to support the early identification of trends, reagent lot variation, operator performance and instrument issues.



NRL SETS THE STANDARD IN THE PROVISION OF COMPREHENSIVE QUALITY ASSURANCE (QA) SERVICES.

NRL QA services consist of EQAS and QC programmes as well as Specificity Monitoring for Blood Transfusion Services. Thousands of laboratories around the world voluntarily participate in NRL's QA programmes to assure the quality of their laboratory testing processes and IVDs in use.

NRL EQAS

NRL EQAS is a proficiency programme designed to assess the integrity of the entire testing process by identifying and resolving any potential sources of error, ultimately preventing misdiagnosis. NRL EQAS incorporates scientifically designed panels of positive and negative samples which are representative of samples typically received by a testing institution. The assessment begins from sample receipt through to the reporting of the test result. Participants report results online via an internet-based application known as OASYS (developed by Oneworld Accuracy, Vancouver, Canada). NRL assesses submitted results and issues a final report which incorporates peer comparison and may include recommendations.

NRL QC

NRL's QC programme, QConnect™ is an independent and integrated programme designed to monitor the precision and accuracy of infectious disease testing. The QConnect™ concept encompasses a number of features which include the utilisation of QC samples optimised for each specific IVD; EDCNet, an internet-based application designed for monitoring infectious disease testing; robust control limits for each QC/IVD combination and constant monitoring and investigations of unexpected QC results. NRL also generates Uncertainty of Measurement (MU) reports to address regulatory requirements for laboratories.

NRL SPECIFICITY MONITORING

NRL offers Specificity Monitoring as a specialist service that identifies rates of false positive reactivity that can be attributed to different IVD reagent lots or laboratory practices. Especially relevant to Blood Transfusion Services, Specificity Monitoring is a mechanism to ensure false positive reactivity is minimised and unnecessary wastage of blood and blood products is reduced.

OUR IMPACT: RESPONDING SUCCESSFULLY TO REGULATORY CHANGE THROUGH NRL EQAS

In Australia and elsewhere, HPV molecular testing has replaced Pap smear tests as the primary screening test for cervical cancer in women. In anticipation of this change, NRL developed an HPV Molecular EQAS (compliant with the ISO 17043 standard) designed to ensure that testing laboratories could meet their accreditation requirements.

This EQAS assessed the qualitative detection of HPV DNA as well as partial identification of HPV subtypes in accordance with the recommendations of the Australian National Cervical Screening Programme. Similarly, changes to the IVD framework meant that diagnostic laboratories performing specialist testing were finding it increasingly

difficult to acquire EQAS for non-routine tests. NRL used its global reach by partnering with the International Leptospirosis Society to provide the Leptospirosis DNA EQAS. Compliant with ISO 17043, this EQAS assessed the qualitative detection of leptospirae and serovar determination.

Services delivered



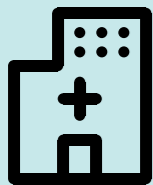
8

No of Countries that received NRL Training Services



5

New customised Training Projects



3

Consultancies



2

Continuing Training Projects

2017 Highlights

- On behalf of the WHO representative office in the Philippines, NRL delivered a series of training activities as part of the “Technical Support to Strengthen Laboratory Testing for Rapid HIV Diagnostic Algorithm, Community Based Screening and National Reference Laboratory-SACCL”
- In collaboration with the WHO Regional Office for the Western Pacific (WPRO) and the Victorian Infectious Diseases Reference Laboratory (VIDRL), NRL provided support for the WHO Western Pacific Region Viral Hepatitis Laboratory Network in Mongolia
- Supported by the WPRO, NRL provided virtual and in-country support for HIV point-of-care testing in Papua New Guinea
- NRL supported the Evaluation of the Community-Based Screening Pilot Project in the Philippines
- In collaboration with the WHO Regional Office for the Western Pacific (WPRO) and the Victorian Infectious Diseases Reference Laboratory (VIDRL), NRL provided support for the WHO Western Pacific Region Viral Hepatitis Laboratory Network in Mongolia
- Under two sub-contracts funded by PEPFAR through the US CDC, NRL continued to provide capacity development activities in Myanmar. This included the supervision and monitoring of quality at decentralised HIV point-of-care testing sites, contributing to the development of a standardised, national training plan for HIV testing services and supporting the implementation of the national HIV viral load scale-up plan in-country



2017 Highlights

- In partnership with CSL Behring, NRL attended the Malaysian Blood Bank Quality Training/GMP Workshop where NRL staff provided training sessions and participated in working group discussions
- NRL delivered a Quality Management System (QMS) Training Workshop for the Vaccine Preventable Diseases (VPD) laboratory network in India, focusing on WHO accreditation standards, audit and assessment processes; and EOAS
- On behalf of the WHO representative office in Vietnam, NRL provided training on the evaluation of IVDs for the Department of Medical Equipment and Construction (DMEC) as a means to strengthen the national IVD evaluation programme



NRL PROVIDES ADVOCACY, SCIENTIFIC CONSULTANCIES, CUSTOMISED TRAINING PROGRAMMES AND MENTORSHIP IN RESOURCE LIMITED SETTINGS TO ENHANCE THE QUALITY OF TESTING FOR INFECTIOUS DISEASES.

High quality testing is vital to ensure accurate diagnosis and appropriate treatment for patients. NRL understands the impact of resource limitations and specialises in providing a range of customised training and consulting services based on identified needs in a culturally sensitive manner.

NRL is a WHO Collaborating Centre and NRL staff are highly regarded as consultants or technical experts by MOH, WHO and NGOs to participate or review countries' current capacity building programmes or in the development of technical guidance or recommendations.

OUR IMPACT: NRL CONTRIBUTION TO REDUCE THE BURDEN OF HEPATITIS IN THE WESTERN PACIFIC REGION

The Western Pacific Region has a disproportionately large burden of chronic hepatitis. Further to this, Mongolia has a high burden of hepatitis B virus (HBV) and hepatitis delta virus (HDV); and the highest hepatitis C virus (HCV) prevalence in the Western Pacific region. To address this burden, the Mongolian government approved the Healthy Liver Program (HLP) Resolution in April 2017 to stop HBV transmission and to eliminate HCV. To achieve this goal, the Mongolian MOH informally requested the WHO to provide technical support to review and assess the quality and

technical capacity of hepatitis laboratories in Mongolia. In its role as a WHO Collaborating Centre for Diagnostics and Laboratory Support for HIV and AIDS and Other Blood-borne Infections, NRL provided support for the WHO Western Pacific Region Viral Hepatitis Laboratory Network. This assessment was jointly conducted in collaboration with the WHO Regional Office for the Western Pacific and the Victorian Infectious Diseases Reference Laboratory. After laboratory assessments of 21 public and private laboratories designated to perform HCV viral load

testing; and associated health care facilities, recommendations were made to help strengthen the quality of hepatitis rapid testing for diagnosis and the collection, storage and transport of samples across the network for HCV viral load testing. Mongolia is currently leading the world in implementing viral hepatitis screening of the entire population to stop HBV transmission and eliminate HCV. The site visits carried out by the collaborative laboratory assessment teams identified potential areas of improvement to assist the HLP successfully meet its goals.

Services delivered



1527
Reference Tests



9527
Screening Tests



657
Plasma packs processed



2017 Highlights

- On behalf of a client, NRL conducted Parvo B19 NAT testing for 230 samples using the cobas® DPX test that detects parvovirus B19 DNA and HAV RNA simultaneously on the cobas® 6800 system. The aim of the study was to observe Parvovirus levels in samples during developmental laboratory scale investigations
- As part of a National Health and Medical Research Council (NHMRC) grant to investigate HTLV-1 infection among indigenous Australian residents of remote communities, NRL conducted HTLV-1 proviral load testing for 608 whole blood samples and 229 dried blood spot (DBS) samples



NRL OFFERS VALIDATED TESTING STRATEGIES FOR THE DETECTION AND CONFIRMATION OF INFECTIOUS DISEASE TO ENSURE ACCURATE PATIENT DIAGNOSES.

NRRL delivers a range of specialised services that includes reference testing, screening of blood and tissue donors; and contract testing. Utilising robustly validated testing strategies, NRL Testing provides clarity for samples having HIV, HCV and HTLV statuses that cannot be resolved by routine screening or diagnostic laboratories. NRL provides TGA-licensed screening of blood and tissue donors for HIV, HBV,

HCV, HTLV and Syphilis. In the absence of IVDs validated for alternative sample types, NRL has validated serology and NAT IVDs for the testing of cadaveric samples. NRL Testing also undertakes scientific projects in collaboration with other organisations through the provision of contract testing services including:

- Development of new assays
- Validation of testing algorithms
- Epidemiological studies
- Support of clinical trials

NRL maintains and characterises an extensive repository of samples (Sample Bank) that are integral to its QA and Evaluation programmes. NRL has Material Transfer Agreements with local and international Blood Transfusion Services for the supply of plasma packs that were reactive on screening tests for infectious disease markers and identified for discard.

OUR IMPACT: NRL CONTRIBUTES TO A NEW UNDERSTANDING OF THE EXTENT OF HTLV-1 INFECTION WITHIN AUSTRALIAN INDIGENOUS COMMUNITIES

Human T-lymphotropic virus (HTLV)-1 was first found to be endemic within indigenous communities in central Australia in 1988 with this later being attributed to a unique variant HTLV-1 subtype C. Each of the significant and recognised complications associated with HTLV-1 infection have since been reported from within this geographic region including Adult T-cell lymphoma, HTLV-1 Associated Myelopathy/ Tropical Spastic Paraparesis, infective dermatitis, strongyloides infection, HTLV-1 associated pulmonary disease and crusted scabies. After being awarded an NHMRC

Project Grant in 2011, Alice Springs Hospital and NRL collaborated on a study to investigate the association between bronchiectasis and HTLV-1 among indigenous Australians. NRL developed an in-house HTLV-1 proviral load assay to conduct this testing and it was determined that higher HTLV-1c proviral load was strongly associated with radiologically defined airways inflammation and death due to complications with bronchiectasis. From 2014-2017, a second NHMRC grant was awarded to investigate HTLV-1 infection among indigenous Australian residents of

remote communities. Due to sample transportation difficulties in maintaining sample integrity, NRL was able to adapt a previously developed in-house HTLV proviral load assay for use on DBS as the sample source instead of serum/plasma. From 2015-2017, a total of 1333 blood samples and 229 DBS were tested. It was found that HTLV-1 rates were lowest among residents of remote communities in Alice Springs (12.6%) and highest among those from communities in the south (61.1%) and west (42.2%) of Alice Springs.

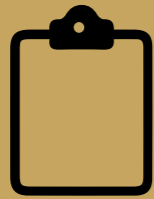
NRL EVALUATIONS

Services delivered



11

IVDs evaluated



5

IVD Change Reviews completed



5

Laboratory Performance Evaluations



4

Verification Panels produced



1

Dossier Assessment conducted

NRL SPECIALISES IN ASSESSING THE ANALYTICAL PERFORMANCE OF IVDs, RECOGNISING THIS INFORMATION IS AN ESSENTIAL PART OF ANY EFFECTIVE TESTING STRATEGY.

A well-designed, laboratory-based assessment of IVD performance can provide a realistic expectation of how the IVD will perform relevant to local conditions using samples representative of the local population. NRL provides two main IVD evaluation services:

1. Assessments of IVDs by reviewing manufacturer's evidence to ensure key performance, quality and safety criteria are met and the evidence presented is scientifically sound. This includes assessments on behalf of the WHO Prequalification of Diagnostics Program. The aim of this programme is to increase accessibility to

affordable and high-quality diagnostic technologies for use in resource limited settings in WHO member states.

2. Design, preparation and provision of custom panels comprised of well-characterised serum or plasma specimens for use in assay verifications or validations.



2017 Highlights

- NRL was endorsed to continue as a WHO Prequalification Evaluating Laboratory allowing NRL to independently evaluate IVDs for HIV, HCV and HBV NAT testing and HIV, HCV, HBV and Syphilis serology on behalf of IVD manufacturers seeking WHO prequalification for their products.



NRL WORKSHOPS



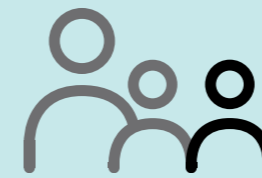
NRL hosts annual workshops for medical laboratory scientists, regulators, IVD manufacturers and clinicians working in the field of infectious diseases. NRL aims to provide a forum that facilitates the exchange of information and diverse perspectives among those working in communicable diseases nationally and internationally.



2017 Highlights

- NRL held the inaugural **NRL Asian Workshop on Quality 2017** in Yogyakarta, Indonesia from 27-28 February 2017. This Workshop hosted 200 delegates from 17 countries including Myanmar, Thailand and Vietnam. Speakers from laboratories, non-government agencies and industry discussed topics relating to the quality of infectious diseases testing. The aim of the meeting was to provide a regional forum in Asia where speakers and delegates could share their experiences. Discussions included commonly encountered challenges in delivering a blood supply free from transfusion-transmitted infections, the journey to achieving quality accreditation and the development and use of QC and EQAS programmes.
- NRL held the 3rd **European Workshop on Quality in Zagreb, Croatia** on 15 May 2017. The Workshop attracted 30 registrants from 17 countries reflecting a truly global community offering a diverse range of perspectives and supporting high calibre and productive discussions. This Workshop also allowed European participants of NRL EQAS and QC programmes to discuss their experience and learn from others in the same region.
- The **NRL Workshop on Molecular Diagnostics 2017** was held in Hobart, Tasmania from 16-17 October 2017. This meeting was attended by 130 delegates from eight countries including Australia, China, Hong Kong and the Philippines. The programme offered sessions on respiratory pathogens, transplantation, STIs, hepatitis diagnosis; and advancements in pathology. Many diverse presentations were delivered with strong representation from numerous organisations ensuring that the meeting delivered high quality and up-to-date information in this rapidly expanding field.
- The **34th Annual NRL Workshop on Infectious Diseases** was held in Hobart, Tasmania from 17-19 October 2017. Two sessions were dedicated to Lyme Disease (LD), where invited international speaker, Dr Tim Brooks (Public Health England) discussed LD from the UK perspective and national speaker, Dr Gary Lum (Commonwealth Department of Health) spoke about the Australian perspective. In addition, Dr George Kotsiou (North Shore Private Hospital) provided an overview of Tick-borne disease in relation to LD. Other highlights included presentations from invited speakers Associate Professor Benjamin Cowie (Peter Doherty Institute for Infection and Immunity) addressing viral hepatitis in the Western Pacific and Professor Mark Boyd (Adelaide University) discussing HIV resistance testing. International speaker, Dr Angela Caliendo (Brown University) spoke on the diagnosis and treatment of CNS infections due to HSV and VZV. Overall, there were 135 delegates from eleven countries in attendance including representation from Australia, New Zealand, Spain, Germany and New Caledonia.

Services delivered



495

NRL Workshops delegates



36

Countries represented by NRL Workshop delegates



NRL Stakeholders

NRL GRATEFULLY ACKNOWLEDGES THOSE ORGANISATIONS THAT HAVE PROVIDED SUPPORT THROUGHOUT 2017.

- Abacus ALS
- Abbott
- African Society for Laboratory Medicine
- Alice Springs Hospital
- American Society for Clinical Pathologists
- Australian Government Department of Health
- Australian Red Cross Blood Service
- Australasian Society for HIV Medicine
- BD Life Sciences
- BioMerieux
- Blood and Tissue Donation Services
- Burnet Institute
- Central Public Health Laboratory, Papua New Guinea
- Cepheid
- China International Transfusion Infection Control
- CSL Behring Australia
- Department of Health, Papua New Guinea
- DiaMex GmbH
- DiaSorin
- ELITechGroup
- Exact Diagnostics
- Flinders University
- Foundation for Innovative New Diagnostics
- Genetic Signatures
- Grifols
- Hologic
- Hong Kong Red Cross Blood Transfusion Service
- ICAP, Myanmar
- Infectious diseases testing laboratories
- International Leptospirosis Society
- International Plasma Fractionation Association
- Irish Blood Transfusion Service
- IVD Manufacturers
- Japan International Co-operation Agency, Myanmar
- Logical Freight Solutions

- Ministry of Health and Sports, Myanmar
- Ministry of Health, Mongolia
- Myanmar National Blood Center
- National AIDS Program, Myanmar
- National Association of Testing Authorities, Australia
- National Blood Service, The Thai Red Cross Society
- National Health Laboratory, Myanmar
- National Reference Laboratory / San Lazaro Hospital STD AIDS Cooperative Central Laboratory, Philippines
- New Zealand Blood Service
- One World Accuracy, Canada
- Peter Doherty Institute for Infection and Immunity
- Republican AIDS Centre, Tajikistan
- Research Institute for Tropical Medicine, Philippines
- Roche
- Save the Children (Myanmar and Philippines)
- Shanghai Blood Centre
- South African National Blood Service
- St. Vincent's Institute of Medical Research
- The Global Fund to fight AIDS, TB and Malaria
- Therapeutic Goods Administration
- United Nations Development Program (Tajikistan and Myanmar)
- United States Centres for Disease Control and Prevention
- United States President's Emergency Plan for AIDS Relief
- Victorian Infectious Diseases Reference Laboratory
- World Health Organization Headquarters and Regional Offices
- World Health Organization Member States

PROFESSIONAL PRESENTATIONS

GMP requirements for validation and qualification

Best S
Presented at the NRL Asian Workshop on Quality 2017
Yogyakarta, Indonesia
27-28 February

The benefits of QC

Vincini G
Presented at the NRL Asian Workshop on Quality 2017
Yogyakarta, Indonesia
27-28 February

Interesting QC Case Studies

Vincini G
Presented at the NRL Asian Workshop on Quality 2017
Yogyakarta, Indonesia
27-28 February

Designing Low Cost Proficiency Programmes

Cabuang L
Presented at the NRL Asian Workshop on Quality 2017
Yogyakarta, Indonesia
27-28 February

Virtual Audit for POC Testing

Braniff S
Presented at the NRL Asian Workshop on Quality 2017
Yogyakarta, Indonesia
27-28 February

Approaches to Test Kit Selection

Braniff S
Presented at the NRL Asian Workshop on Quality 2017
Yogyakarta, Indonesia
27-28 February

Process Mapping a Test Kit Validation

Braniff S
Presented at the NRL Asian Workshop on Quality 2017
Yogyakarta, Indonesia
27-28 February

QConnect Vision. Changing the QC paradigm

Dimech W
Presented at the NRL European Workshop on Quality 2017
Zagreb, Croatia
15 May

Alternative Approaches to QC for Infectious Diseases Testing

Vincini G
Presented at the NRL European Workshop on Quality 2017
Zagreb, Croatia
15 May

Comparison of Cytomegalovirus DNA Viral Loads Expressed in Copies per Millilitre and International Units per Millilitre Reported from Participants of Three External Quality Assurance Schemes

Dimech W¹, Cabuang L¹, Grunert H², Lindig V³, James V⁴, Senechal B⁴, Vincini G¹, Zeichhardt H³

1. NRL, Melbourne, Australia
2. GBD Gesellschaft fuer Biotechnologische Diagnostik mbH, Berlin, Germany
3. UK National External Quality Assessment Service (UKNEQAS) for Microbiology, Public Health England, London, United Kingdom
4. Institut fuer Qualitaetssicherung in der Virusdiagnostik – IQVD der GBD mbH, Berlin, Germany
5. INSTAND Gesellschaft zur Foerderung der Qualitaetssicherung in medizinischen Laboratorien e.V., Duesseldorf, Germany
6. Charité-Universitaetsmedizin, Institut fuer Virologie, Berlin, Germany

Presented at the Standardisation of Genome Amplification Techniques and Serology/Standardisation of Infection Diagnostics Workshop 2017
London, UK
26-28 June

Presented at the Standardisation of Genome Amplification Techniques and Serology/Standardisation of Infection Diagnostics Workshop 2017
London, UK
26-28 June

Standardization status of current rubella assays: discrepancies, clinical implications

Dimech W
Presented at the WHO Consultation on the WHO International Standard for anti-rubella
Geneva, Switzerland
30 June

Validation of the DiaSorin LIAISON XL HBsAg Quant CLIA for use with Cadaver Plasma

Best S¹, Arvanitis L¹, Arachchi N¹, Jalota S²
1. NRL, Melbourne, Australia
2. School of Science, RMIT University, Australia
Presented at the 20th Annual meeting of the ESCV 2017
Lake Maggiore, Italy
13-16 September

HIV dried tube sample EQAS: One year on

Cabuang L
Presented at the NRL Workshop on Molecular Diagnostics 2017
Hobart, Tasmania
16-17 October

Investigation of the performance of assays for Lyme Disease in Australia

Best S
Presented at the 34th Annual NRL Workshop on Infectious Diseases
Hobart, Tasmania
18-19 October

NRL Blood Screening EQAS, 2015-2016. How is it trending?

Taqi R
Presented at the 34th Annual NRL Workshop on Infectious Diseases
Hobart, Tasmania
18-19 October

HTLV proviral load assay validation

Wilson K
Presented at the 34th Annual NRL Workshop on Infectious Diseases
Hobart, Tasmania
18-19 October

Alternative Approaches to QC for Infectious Diseases testing

Vincini G
Presented at the 34th Annual NRL Workshop on Infectious Diseases
Hobart, Tasmania
18-19 October

PROFESSIONAL PRESENTATIONS

Pilot of Laboratory Capacity Survey and Self-Assessment Tool Used to Support the Establishment of a Regional Network of Hepatitis Reference Laboratories

Littlejohn M¹, Nicholson S¹, Ganbold S², Cowie B³, Dimech W⁴

1. WHO Regional Reference Laboratory for Hepatitis B Virus, Victorian Infectious Diseases Reference Laboratory,

Royal Melbourne Hospital at the Peter Doherty Institute for Immunity and Infection, Victoria, Australia

2. National Center for Communicable Diseases, Ulaanbaatar, Mongolia
3. WHO Collaborating Centre for Viral Hepatitis, VIDRL, Peter Doherty Institute for Immunity and Infection, Victoria, Australia

4. WHO Collaborating Centre for Diagnostics and Laboratory Support for HIV and AIDS and Other Blood-borne Infections, National Reference Laboratory, Victoria, Australia

Presented at World Hepatitis Summit 2017
Sao Paulo, Brazil
3 November

NRL Blood Screening Nucleic Acid EQAS, 2015-2016: How is it trending?

Taqi R, Cabuang L, Best S
Presented at the 28th Regional Congress of the ISBT
Guangzhou, China
25-28 November

PEER REVIEWED PUBLICATIONS

Menz F, Menz J, **Wilson K**, Turpin J, Bangham C, Einsiedel L. Infective dermatitis associated with human T-lymphotropic virus type 1 infection in Adelaide, South Australia' Australas J Dermatol. 2017 Aug 22; doi: 10.1111/ajd.12704.

Van Thi Thuy Nguyen, Susan Best, Pham Hong Thang, Truong Xuan Lien, Ha Thanh Hoang , Ngo Thi Hong Hanh, **Kim Wilson**, Hoang Xuan Chien, Lai Kim Anh, Bui Duc Duong, Masaya Kato. 'HIV point of care diagnosis: Preventing misdiagnosis –experience from a pilot of rapid test algorithm implementation in selected communes in Vietnam 2017' Journal of the International AIDS Society. Aug 29; 20(Suppl 6):21752.

Lloyd Einsiedel, Hai Pham, **Kim Wilson**, Rebecca Walley, Jocelyn Turpin, Charles Bangham, Antoine Gessai, Richard J Woodman. 'Human T-Lymphotropic Virus type 1c subtype proviral loads, chronic lung disease and survival in a prospective cohort of Indigenous Australians' PLOS Neglected Tropical Diseases. 2018 Mar 12; 12(3):e0006281.

4th Floor, Healy Building
41 Victoria Parade
Fitzroy Victoria 3065 Australia

t. +61 3 9418 1111
f. +61 3 9418 1155
e. info@nrlquality.org.au

www.nrlquality.org.au

