

## Griffith Medical Research College

### Griffith Medical Research College Newsletter No. 2, 2007

**The Griffith Medical Research College (GMRC) was established in 2004 as a joint initiative of Griffith University and the Queensland Institute of Medical Research with the aim of encouraging collaboration between researchers of both organisations.**

*I would like to congratulate GMRC PhD Students Luke Meredith (HIV Molecular Virology Laboratory, QIMR) and Thanh Tran (Clinical Tropical Medicine Laboratory, QIMR) who have both recently been “Confirmed” after one year of PhD candidature. You can read about Luke and Thanh’s projects below in the Researcher Profile section. Please contact me if you require any information regarding the GMRC or if you have news that you would like to share with other GMRC members.*



*Kathy Andrews, Executive Officer*

#### Researcher Profiles

**Luke Meredith, GMRC PhD Student:** HIV is a major problem around the world with approximately 40 million people suffering from HIV or HIV-related illnesses. There is no vaccine for the virus and the virus rapidly evolves to evade the treatments currently available to patients, so ongoing research into finding targets for novel drug therapies is essential. The aim of my project is to investigate the RNA leader region of the HIV genome and the role it plays in regulating viral reverse transcription. It has been shown that hairpin loop structures in the RNA leader, such as the TAR RNA element, play a role in regulating initiation of reverse transcription. My aim is to elucidate the mechanism by which TAR has this effect, whether it occurs through RNA-RNA or RNA-protein interactions. This project will provide a greater understanding of the mechanism of HIV-1 reverse transcription and potentially yield new targets for therapy if any interactions are discovered between the RNA leader and the RT enzyme. To contact Luke e-mail [luke.meredith@qimr.edu.au](mailto:luke.meredith@qimr.edu.au)



**Thanh Tran, GMRC PhD Student:** Malaria is the world’s most significant tropical infectious parasitic disease. It has been estimated that around 500 million people contract malaria and approximately 2 million people die as a result of malaria each year. There is no malaria vaccine and the development of parasite resistance to current antimalarials is a global problem. The first aim of my research project is to investigate a class of enzymes called histone deacetylases (HDACs) in the malaria parasite *Plasmodium falciparum*. These enzymes are important for gene regulation and cell cycle progression in higher eukaryotic organisms, and likely play a similar role in *P. falciparum*. The *P. falciparum* HDACs have also been proposed as a new class of anti-malarial drug targets. The second aim of my research is to characterise some pharmacodynamic and pharmacokinetic properties of fourteen new synthetic HDAC inhibitor analogues that may represent new anti-malarial agents. My research project will lead to a better understanding of malaria parasite biology and contribute to the development of much needed new antimalarial agents that may help to combat the problem of drug resistance. To contact Thanh e-mail [thanh.tran@qimr.edu.au](mailto:thanh.tran@qimr.edu.au)



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### GMRC News:

#### 1. Australian Society for Medical Research (ASMR) Medical Research Week<sup>®</sup>

**Key Dates:**

23<sup>rd</sup> May, 2007 Queensland Postgraduate Medical Research Student Conference, Wesley Hospital Auditorium, 9:00am (rpelekanos@mmri.mater.org.au)

29<sup>th</sup> May 2007 Finalists Presentations for Queensland Premier's Awards Post-doctoral and Senior Researcher Award, Bancroft Centre, QIMR, 3pm ([nathanS@qimr.edu.au](mailto:nathanS@qimr.edu.au))

1<sup>st</sup> June, 2007 MRW<sup>®</sup> Dinner and awarding of the prizes for the QLD Premiers Awards, 7 pm, Marriott Hotel, Brisbane ([Kevin.spring@qimr.edu.au](mailto:Kevin.spring@qimr.edu.au))

#### 2. Prizes and Funding Opportunities

- **2007 Prime Minister's Prizes for Science**

Applications due Friday, May 4, 2007

(<https://sciencegrants.dest.gov.au/SciencePrize/Pages/Home.aspx>)

- **2007 Australian Museum Eureka Prizes**

Applications due 4 May 2007 (<http://www.austmus.gov.au/eureka/>)

- **International Federation of University Women**

Ida Smedley Maclean/CFUW-A Vibert Douglas International Fellowships([www.ifuw.org](http://www.ifuw.org))

Freda Bage Fellowship & Queensland Commemorative Fellowships ([www.afuw.org.au](http://www.afuw.org.au))

- **Humboldt Research Fellowships** ([www.avh.de](http://www.avh.de))

- **Australian Rotary Health Research Fund**, PhD Scholarships in Motor Neuron and Mental Health Research (<http://arhrf.org.au/sub2.asp?pageName=Applications%20Home>)

#### 3. GMRC Web site:

The GMRC Web site can be accessed on at the following address: (<http://www.qimr.edu.au/research/gmrc/index.html>) The site contains information such as the GMRC Committee members, GMRC News Letters, details of major equipment and technology platforms from GU and QIMR, and details of funding opportunities through the GMRC.

#### 4. How to get a password to access GU protected web sites:

Several of the GU sites are password protected (eg Office for Research internal grants etc). To arrange for a password over the phone, call GU InfoServices on 3735 5555 or 07 5552 5555. Note: You will need to know your GU Staff ID (contact Kathy Andrews if you don't have this).

#### 5. GMRC Author Affiliation on Manuscripts:

The GMRC Committee has approved the following wording for author affiliation on manuscripts arising from GMRC funded projects: *"Griffith Medical Research College, a joint program of Griffith University and the Queensland Institute of Medical Research, QIMR, Herston, QLD, Australia, 4006"*



## Griffith Medical Research College

**6. Congratulations:** Congratulations to the following QIMR staff that have been successful in obtaining Griffith University Credentialed staff appointments (appointment level indicated in brackets):

Dr David McMillan (Lecturer),  
Dr Michelle Gatton (Lecturer),  
Dr Michael Batzlof (Lecturer),  
Dr Darren Krause (Associate Lecturer),  
Dr Timothy Hurst (Associate Lecturer).

For further information or submissions for the next  
GMRC Newsletter please contact  
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