



Malaria Vaccine Project Newsletter 5 - August 2019

PATRONS Hon Lawrence Springborg PRID Noel Trevaskis OAM PRIP Glen W Kinross AO

Vaccine Project



Mr Taymin du Toit-Thompson, Dr Reshma Nevagi and Ms Winter Okoth

Welcome new members of the Good Group!

It continues to be an exciting and busy time in the Laboratory of Vaccines for the Developing World at the Institute for Glycomics. In addition to continuing with the clinical trial work, we have a number of new staff and students who have commenced working with us on new projects in the last few months. Their work is focused on different aspects of malaria vaccine development.

Taymin du Toit-Thompson has recently commenced a Masters in Medical Research, supervised by Dr Danielle Stanisic. Taymin grew up in Tweed Heads on the Gold Coast, Australia. Following high school, he started a Bachelor of Arts at Southern Cross University for one year before taking an elective in physiology and realising that Biomedical Science was his real passion. He completed his Bachelor of Biomedical Science at the end of 2018 and then spent two months travelling in Europe. Once he got back home, he felt determined to study a Master of Medical Research. As soon as he saw the description of his project "Development and pre-clinical evaluation of a transmission blocking liposomal malaria vaccine" he said: "I knew It was something which could make a real difference in the world. The impact of malaria is tragic and because it's not a western problem it doesn't get the funding and support it truly deserves. I feel lucky that I can dedicate my degree towards something I feel genuinely passionate about."

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Vaccine Project

Welcome new members of the Good Group! (Cont.)

Dr Reshma Nevagi was born and raised in India, where she received her Bachelor of Pharmacy (2010) and Masters of Pharmacy (2012) degrees. She then worked as a drug safety associate for clinical trials in India for 2 years. She moved to Australia in 2015 after obtaining an International PhD scholarship at UQ to work on the development of peptide vaccines against Group A streptococcus in Prof. Istvan Toth's group. Following submission of her PhD in early 2019, she joined the Malaria Research Group as a Research Fellow and her work will focus on the pre-clinical development of the field-deployable whole parasite malaria vaccine. She said: "Malaria is one of the most significant contributors to disease and socio-economic burden in India and other developing countries, and therefore I am highly motivated to work with the Professor Michael Good and Dr Danielle Stanisic team to contribute towards development of the malaria vaccine. I am hoping that a safe and effective malaria vaccine will be soon available to the general public." Besides lab research, Reshma enjoys travelling, cooking and gardening in her free time.



Ms Mei Fong Ho, Ms. Emily Cooper, Dr Manisha Pandey, Dr Reshma Nevagi, Dr Simone Reynolds, Ms Hanan Al-Nazal, Ms Jessica Dooley, Professor Michael Good AO FTSE FAHMS, Ms Jamie-Lee Mills, Ms Winter Okoth, Dr Mehfuz Zaman, Ms Yongbao Huo, Dr Danielle Stanisic, Dr Sharareh Eskandari Ms Winter Okoth is undertaking a PhD entitled "Investigating the mechanisms of immunity to whole blood-stage parasite malaria vaccine candidates" and is supervised by Dr Danielle Stanisic and Prof Michael Good. Winter was born and raised In Kisumu, Kenya, Africa. Her hometown is well known for having high malaria transmission and she and her family have suffered from malaria. She undertook her Bachelors degree in Biology and associate degree in Chemistry at the Thomas More University, USA. She then completed her Masters of Science in molecular microbiology and immunology with a focus on antimalarial drug pharmacodynamics at the Johns Hopkins School of Public Health in 2017. This was followed by a one year placement at the Centre for Biologics & Evaluation Research (CBER), U.S. Food & Drugs Administration in the USA to study malaria pathogenesis. Her interest in biomedical & clinical research in tropical infectious diseases was inspired largely by the public health diseases and issues she witnessed first-hand while growing up in Kenya. She said "Even though I came from a poor family, I was determined to continue with my higher education and pursue my dreams of becoming a scientist who will also contribute to finding cures, developing vaccines and/ or finding effective therapeutic strategies for diseases such as malaria that plague my society today." Besides science, she is also an artist with a love for photography, poetry, singing, dancing and networking. She is also a Rotarian who loves community outreach and getting involved in making a difference wherever she is around the world.



Professor Michael Good AO

CHAIRMAN'S MESSAGE: A MUST-WIN VENTURE

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Project

If we need increased vigour to drive our malaria vaccine venture, it is contained in the latest report of the World Health Organization (WHO). The report, released in November 2018 states that there has been no significant progress in controlling this terrible disease over the last three years and an effective vaccine is urgently needed. The estimated number of cases of malaria worldwide has actually grown from 217 million to 219 million and the number of deaths from malaria has dropped only slightly to 435,000. Sadly, the African region carries a disproportionately high share of these deaths with approximately 93%.

There is no doubt that the situation would be so much worse were it not for the enduring and wonderful prevention work done with long-lasting insecticidal nets (LLINs), spraying and education by the International Global Fund and our own organizations like Rotarians Against Malaria (RAM) and Rotarians Eliminating Malaria-a Rotary Action Group (REMaRAG). These efforts must remain the core and ongoing day-to-day drive to control malaria. However, given the latest WHO report, I believe that there must be an increased effort globally by Governments, Corporations, and Organizations like Rotary to support the development of effective vaccines.

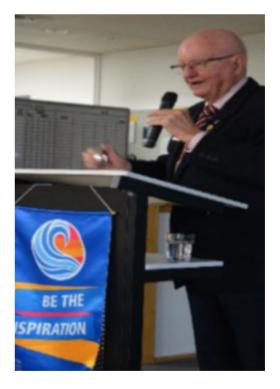
The kind of support I am suggesting for malaria vaccine development mirrors what is happening through Rotary all over Australia and indeed from the Australian Government. By the time you read this report, Rotary will have raised \$600,000 which, together with the match of \$500,000 from the Federal Government Medical Research Futures Fund, will mean that \$1.1 million has gone forward to support the development of Professor Good's malaria vaccine PlasProtecT®. On behalf of the Malaria Vaccine Project, I extend my warmest congratulations and thanks to Rotary districts, clubs and members for this amazing effort. Thank you also to Zarraffas Coffee, the many friends of Rotary and other people who have supported the clinical trials of PlasProtecT®.

On the scientific front, further Phase 1 human clinical trials to test the efficacy of the vaccine against a malaria parasite will occur at the Gold Coast at the end of July. This will add to last year's Gold Coast trials which generated exciting results. Professor Good also highlighted a valuable breakthrough that would enable the vaccine to be housed within an artificial membrane called a liposome. This will allow the vaccine to be freeze-dried and rehydrated anywhere in the world. Accordingly, this new liposome technology has the power to move the vaccine program forward more quickly to Phase 2 trials in endemic countries.

However, the liposome technology has to undergo toxicity tests before it can be used in further Phase 1 trials in Brisbane or Melbourne. The technology and testing comes at significant COST and takes our estimated target to over 2 million. Professor Good's article in this Newsletter will say more about these developments.

We are on the cusp of exciting progress both scientifically and in our fundraising. The matching grant announcement by Minister Hunt gave Rotary a great boost on radio, television and print media. We need Big Business and large Corporations with interests in malaria-stricken countries to step forward and pitch in alongside Rotary, Government, friends of Rotary and our special partner Zarraffas. 'CLINICAL TRIALS SAVE LIVES'

PDG Graham Jones AM, Chair of the Malaria Vaccine Project Committee



Graham speaking at a multi-club breakfast sponsored by the Rotary Club of Kardinia in Geelong

Michael Good Update

The whole parasite trial is entering a new phase with the enrolment of a further three volunteers into the study. We would have preferred to have more volunteers, but we are excited to have these volunteers. Following their course of vaccinations we will test their immune responses to the malaria parasite and they will be challenged with viable parasites to determine the degree of protection afforded by the vaccine.

We have already found that the chemically attenuated vaccine can induce a strong immune response to malaria in human volunteers, which was an extremely exciting discovery. After enrolling these additional volunteers, we will have a better indication as to the extent of coverage afforded by the vaccine, and whether the vaccine can prevent or lessen clinical symptoms in individuals who have never lived in a malaria-endemic country.

Danielle and her team continue to make very good progress with the liposome vaccine – the form of vaccine that can be frozen or freeze-dried for ease of shipment. The vaccine has proven to be highly effective in laboratory animals and we are working to develop the human vaccine. If that is able to induce an immune response in human volunteers, similar to what the chemically attenuated vaccine can, we will be ready to consider testing the vaccine in a malaria-endemic country.



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Rotary's support has been phenomenal and without that we would not have the exciting results that we have and would not have won the Government grant of \$500,000. The next 12 months promises to be an exciting time and I look forward to sharing more of our progress with the wonderful Rotarians who have supported us. Michael Good

Federal Government Funding Update

In March 2019, the Minister for Health the Hon Greg Hunt MP announced that the Federal Government would match the \$500,000 that Rotary had raised with a further \$500,000 from the Medical Research Future Fund (MRFF). This brings the total funds raised towards the malaria vaccine research at the Institute for Glycomics, Griffith University, to over \$1million.

This encouraging announcement was followed by a formal application process that the Institute for Glycomics has now completed. As a result, a funding agreement between the Federal Government and the Institute for Glycomics was fully executed on 26 June. The \$500,000 has been received by the Institute and the project is now underway! The much needed funds will go towards the salary of a Research Fellow and supporting two new students in the laboratory of Professor Michael Good.

This only became possible due to the persistence and very hard work of the Rotarians!



Left to right: Professor Michael Jennings, Deputy Director (Research); Professor Mark von Itzstein AO, Director of the Institute for Glycomics; Dr Chris Davis, General Manager

Dr Chris Davis General Manager

New member profile: PDG Ross Smith

Ross Smith has been a State High School Principal in Queensland for twenty seven years, retiring recently after having served in both country and city schools. During that time he represented Education Queensland on international student admissions and promotion in Japan, Taiwan, China, Hong Kong and Singapore and completed exchange programs as a school administrator in both Melbourne and New Zealand. He also served as a school assessor for the Council of International Schools (CIS) based in Madrid contributing to school development around Australia and overseas. He is a Life Member of the Queensland Secondary Principals' Association.

Ross is a long time Burleigh Heads resident and has volunteered with Gold Coast Life Line for a quarter of a century in a range of roles from Telephone Counsellor through to Board member.

Ross is a Rotarian, for over thirty years now, and is a member of the Rotary Club of Burleigh Heads. He was elected Rotary District 9640 Governor for 2002/2003 and has represented the organisation in Chicago at the International Council of Legislation. He has represented Rotary in his profession as a volunteer in schools and hospitals in Tanzania, Timor Leste, Papua New Guinea and Fiji. He has been a Guest Speaker at the Fiji National Principals' Association Annual Conference.

Ross was amongst the first Rotary Ambassadors for the Griffith University Malaria Vaccine Program. He has promoted the program into the central Queensland Rotary District 9570, appointing the first Ambassador there.

Ross currently works with the Sydney University Medical School on Prostate Cancer research.

Ross is a welcome addition to the committee.



Ross Smith

Rotary Club Griffith Gold Coast

Malaria Vaccine Committee

PDG Graham Jones AM Neil Jones PRFC Hon Sam Doumany PDG Sandy Doumany PDG Dai Mason PDG Ross Smith Gerard Brennan OAM Laraine Brennan Teresa Dawson Karin Kolenko Mervyn Powell Danielle Stanisic Olga Chaourova Professor Michael Good AO

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Proiect

Benji's visit to the Malaria Vaccine Project laboratory



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The laboratory of Professor Michael Good welcomed Gold Coast Benji, who visited the laboratory prior to his trip to Papua New Guinea and Sri Lanka.

Benji has just published a book called Love is the Answer. He sells copies of the book for AU\$20 in a fundraising effort to support the Malaria Vaccine Project at the Institute for Glycomics. Please support Benji and purchase his book. Visit the website https:// goldcoastbenji.com.au/ to buy the book.



The New Goal of the Malaria Vaccine Project



ROTARY DISTRICT GOVERNOR 2019 – 2020

Rotary District 9640 is proud to have a very successful unique partnership with Griffith University for the Malaria Vaccine Project. With the support of Rotary Clubs in Australia and overseas we have achieved raising over \$580,000 including additional support from private sponsors.

Federal Health Minister The Honourable Greg Hunt MP responded to an approach led by Committee Chair PDG Graham Jones AM , Professor Michael Good AO, and assisted by the former Senator Santo Santoro, and The Honourable Karen Andrews MP. This led to a Federal Government grant of \$500,000, which demonstrates that there is general recognition of Malaria as a major disease remaining throughout the equatorial belt globally with over 450,000 deaths annually, predominately young children and pregnant women.

Our new District Governor 2019– 2020 Harry Bolton & his wife Shauna have visited the Laboratory with Past District Governor Graham Jones and had a full tour and update on the Malaria Vaccine Project with Dr. Danielle Stanisic.

Shauna has chosen the Malaria Vaccine Project as her partner's project for the year.

What this means is Shauna will have the opportunity to talk about the project to over 50 Clubs at their official visits throughout District 9640 as well as fundraise for this very important project.

We wish them both safe travels and success on behalf of the Malaria Vaccine Project Committee.



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Shauna Bolton

The Rotary Club of Hope Island Update

The Rotary Club of Hope Island has 5 members of the club on the Committee for the Malaria Vaccine Project and their passion has spread to the club with fundraising for this project. The Sanctuary Cove Boat Show BBQ and the Annual Charity Golf Day have been very successful, and, therefore, the Malaria Vaccine Project has been one of the beneficiaries from both fundraisers.

The Club is very proud to have donated approx. \$35,000.

The Rotary Club of Surfers Paradise Race Day supported by Hope Island has again this year made the Malaria Vaccine Project their beneficiary.

The Rotary Club of Gold Coast has also been very generous supporting the Malaria Vaccine Project.



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Donor's Honour Roll (Cont.)



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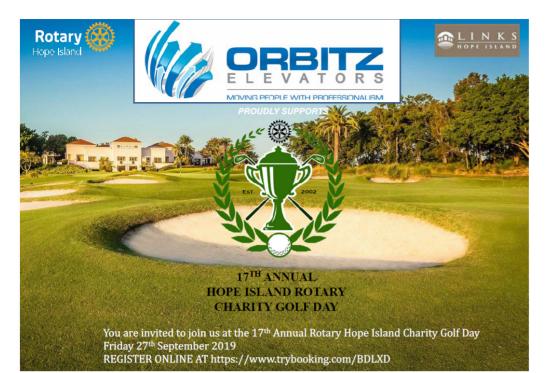
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News and Events





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DRESS CODE Black Tie COST \$220 per person incl GST \$2,000 incl GST for a table of 10



Entertainment from the Hanlon Brothers Special feature comedy act by Arj Barker Exciting raffle prizes Live & silent auction



ques Payable to: Surfers Paradise Rotary (PO Box 5276, GCMC Qid 9726)

Ticket Delivery Address: