

MALARIA VACCINE PROJECT

NEWSLETTER March 2023 | ISSUE 18



OUR HISTORY

In 2015 Sam and PDG Sandy Doumany attended a Rotary Against Malaria Conference, with Dr Danielle Stanisic from the Institute for Glycomics as the Guest Speaker. Danielle spoke about Malaria Vaccine research led by herself and Professor Michael Good AO at the Institute. She mentioned that their Laboratory needed a Separator which would cost \$8000.

Sam took that on board and approached PDG Graham Jones to see if the money required could be raised. Within a week, Graham, Sam and other Rotarians had raised the funds.

The Griffith Rotary Satellite Club was in the formation period and the cheque was presented to Dr Danielle Stanisic (a prospective member) at the next meeting. The Rotarians felt this sent a message to new members:

“This is the power of Rotary”

After learning more about Professor Michael Good and Dr Danielle Stanisic’s research journey, a core of Rotarians developed a passion to be part of the quest to save the lives of so many men, women and children and eliminate Malaria from the world.

In 2016 Gerard Brennan had discussions with the Governor General’s Office in Canberra which led to the Governor General, Sir Peter Cosgrove, launching the Malaria Vaccine Project at a function in the Institute for Glycomics on 27 March 2017.

COMMITTEE CHAIR

PDG Sandy Doumany OAM

COMMITTEE

Neil Jones (Treasurer)

Laraine Brennan (Secretary)

Gerard Brennan OAM

Hon Sam Doumany AM

Teresa Dawson

Karin Kolenko

Mervyn Powell

PDG Ross Smith

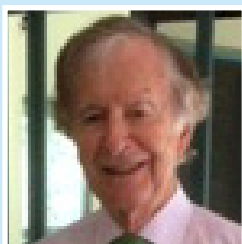
PDG Dai Mason

Bruce Howlett

NATIONAL AMBASSADOR

The Honourable Anna Bligh AC

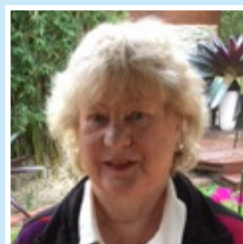
MALARIA VACCINE PROJECT NEWSLETTER COMMITTEE



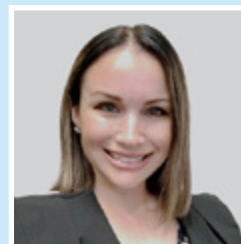
Gerard Brennan OAM
Chair



Hon Sam Doumany AM
Committee Member



Laraine Brennan
Committee Member



Nina Kristensen
Development Manager
Institute for Glycomics

CHAIR MESSAGE



PDG Sandy Doumany OAM
CHAIR



A new era for the Malaria Vaccine Project

This is the first opportunity I have had to communicate with our District 9640 Rotary Clubs, Rotary Clubs Nationally & Overseas, and individual donors and supporters.

I would like to extend a very special welcome to the Hon Anna Bligh who has joined us as the National Ambassador and we look forward to her participation with the team, striving for the success of Malaria Vaccine Project.

We also welcome PDG Harry Bolton and PDG Jeff Egan to the committee, who will commence their roles in the Ambassadorial team.

We have just passed our 6th Anniversary of the Malaria Vaccine Project this month and I am reminded of the wonderful and unique partnership between the Griffith University and Rotary District 9640. This partnership has been extremely productive in garnering financial support for the research team to progress with their exciting malaria vaccine development.

As we continue to look back and celebrate the many successes and milestones achieved over the past six years, I implore you to look forward to the challenge ahead. My vision for the coming year is to engage our current supporters, and beyond to link arms with as many people as possible, emphasising the critical need for financial donations to support this project going forward and end malaria, for good. You may recall our goal to fundraise enough to cover support for a post-doctoral research scholar, which was announced last year. I am delighted to advise that we are well on our way to bringing this to fruition in 2023.

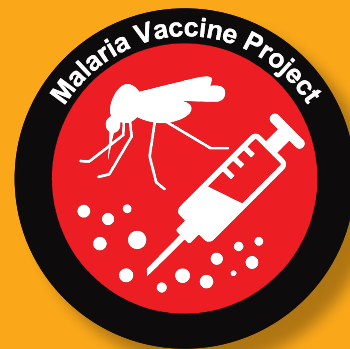
Many clubs have demonstrated the power of Rotary, holding exciting, engaging and well-attended fundraising events. We hope that you consider the Malaria Vaccine Project as one of your beneficiaries for the year ahead.

We can help propel the research forward through our fundraising efforts and in turn, save the lives of over 627,000 people annually.

We trust that you will continue to enjoy our Newsletter, slightly revamped to keep you informed of research progress and the lighter side of Rotary news.

Any queries please forward to me: 0418 150 240 | srmd@bigpond.net.au

malariavaccineproject.com



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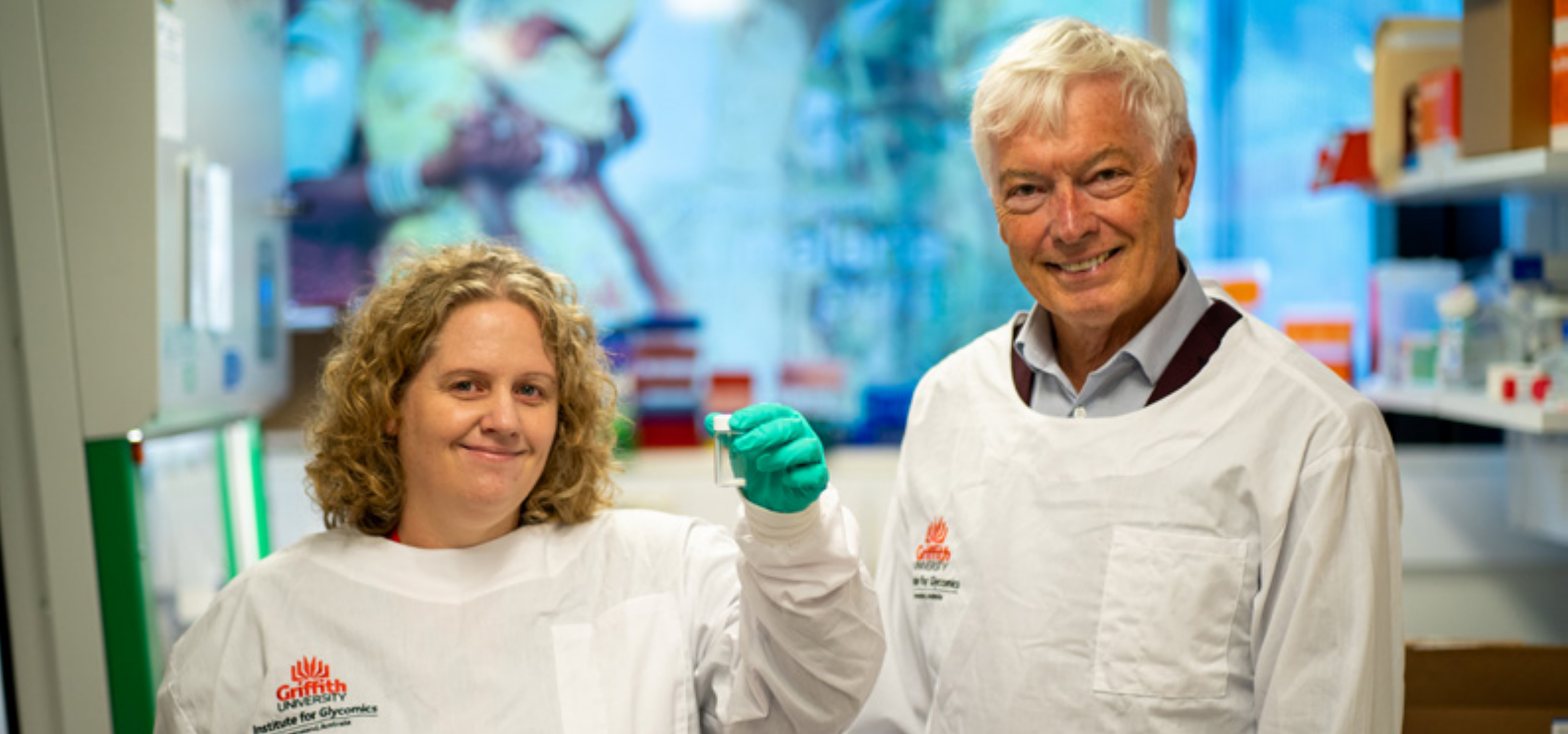
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RESEARCH UPDATE

Professor Michael F. Good AO DUniv

*Head, Laboratory of Vaccines for the Developing World
Institute for Glycomics, Griffith University*

Our team have been excitedly preparing for the toxicology study, which you may have seen me previously reference when providing an overview of the next phase of the vaccine development.

Toxicology studies are an essential aspect of drug/vaccine development and clinical trials. Before any new drug or vaccine can be tested in humans, it must undergo a series of safety evaluations to ensure it does not pose any significant risks or adverse effects. This is where toxicology studies come in, which involves the systematic testing of a substance's safety and efficacy in animal models before it can be tested in humans.

Our team are currently growing parasites in preparation for the formal toxicology studies, which is a critical ethical requirement before commencing any clinical trial. The aim of this stage is to test the safety of the human vaccine in male and female rats by administering it and measuring their general well-being, immune response, and histological evaluation of any untoward events. The process is expected to take about three months, after which a formal report will be submitted to the Ethics Committee as part of an 'Investigator Brochure', along with a 'Clinical Trial Protocol', and a 'Patient Information Consent Form'.

Toxicology studies are crucial in research for several reasons. Firstly, they provide insight into the potential risks and side effects of a new drug or vaccine on different organisms. This information can then be used to make informed decisions on whether to proceed with clinical trials or not. Secondly, toxicology studies can help identify the optimal dosage levels for a drug or vaccine to minimize the risks of toxicity or side effects. Thirdly, toxicology studies can help researchers better understand the mechanism of action of a drug or vaccine and how it interacts with different biological systems in the body.

Toxicology studies can inform researchers about the potential risks and benefits of a drug or vaccine, which is vital for determining its suitability for clinical trials.

This component plays a critical role in vaccine development and clinical trials. The three-month process will provide valuable information about the vaccine's safety and efficacy, which will inform the Ethics Committee's decision to approve the clinical trial. It is expected that the clinical trial will commence by the end of 2023, and we await, with anticipation, the results of these critical studies.

SAVE THE DATE

**HOPE ISLAND
ROTARY CLUBS'
BLACK TIE DINNER**



**PROUDLY SUPPORTING
THE MALARIA
VACCINE PROJECT**



**SANCTUARY COVE GOLF CLUB
THE PARKWAY, HOPE ISLAND QLD 4212**

JUNE 3 | 6:30pm

TICKET DETAILS TO BE ANNOUNCED SOON



ZOONOTIC MALARIA

Associate Professor Danielle Stanisc
*Research Leader,
Institute for Glycomics, Griffith University*


What is a zoonosis? A zoonosis or zoonotic disease is an infectious disease that is transmitted from animals to humans. According to the World Health Organisation, they are a major global health concern due to our close relationship with and proximity to animals in agriculture, in the natural environment and as companions.

More than two hundred species of malaria parasite are known to infect birds (including penguins), reptiles and mammals including humans. Of these, only five are known to be transmitted by the female Anopheline mosquito from one human host to another. These are *Plasmodium falciparum*, *P. vivax*, *P. malariae*, *P. ovale curtisi* and *P. ovale wallikeri*. There are also several primate malaria parasites that can cause zoonotic malaria in humans. Recently, the number of reported zoonotic *Plasmodium* species infections in humans have been increasing, including in countries that have eliminated human-specific malaria parasites.

The most clinically significant of these is *P. knowlesi* which is a parasite of Old World macaque monkeys in the southern part of Asia, including Malaysia, Indonesia, Thailand, Myanmar, Singapore, the Philippines, Brunei, Vietnam, and Cambodia. *P. knowlesi* is highly pathogenic in humans and can cause severe disease and death. Six to nine percent of symptomatic adult cases develop severe

disease including acute respiratory distress syndrome and multi-organ dysfunction. As it can cause severe disease at relatively low parasitemias, it is critical to promptly diagnose and treat these infections. This is complicated by the fact that by microscopy, it can be misdiagnosed as the less pathogenic *P. malariae* which can result in treatment delays with fatal consequences. It has a shorter life-cycle within the red blood cell (24 hours) than the human-specific malaria parasites (48-72 hours). This means a high level of parasites can rapidly develop in the blood.

There are a number of other zoonotic malaria parasite species, which have a lower recorded prevalence. It is likely that their prevalence and distribution are underestimated and the more we look, the more we will find. *P. cynomolgi* is predominantly found in Old World monkeys in Southeast Asia and is not known to cause severe disease in humans. Like the human-specific parasites, *P. vivax* and *P. ovale*, it has a dormant form in the liver known as a hypnozoite. This can cause a relapsing malaria infection weeks or months after the initial infection. *P. inui*, which also infects Old World monkeys has been detected rarely in humans in Asia. *P. simium* infects New World monkeys and has been reported in humans in Brazil. While it has only recently been reported in humans, it's been suggested that it has previously been misdiagnosed as the human-specific parasite, *P. vivax*. *P. brasilianum*, which also infects New World monkeys, is found throughout Central and South America, and is commonly misdiagnosed as the human-specific parasite, *P. malariae*. The clinical features and pathogenesis of *P. simium* and *P. brasilianum* infections in humans are still not clearly defined.



According to the World Health Organisation Zoonotic diseases are a major global health concern due to our close relationship with and proximity to animals in agriculture, in the natural environment and as companions.

ZOONOTIC MALARIA continued

Why is zoonotic malaria important? Aside from species like *P. knowlesi* that can cause severe and fatal disease and the obvious public health implications, it presents a number of challenges for malaria-control efforts in affected countries. The ability to correctly diagnose infection with zoonotic malaria parasites is critical for ultimately being able to demonstrate elimination of human-specific malaria parasites. The WHO grants malaria-free certification to countries in which there has been 0 indigenous cases of all human malaria parasites for at least 3 consecutive years and there is a fully functional surveillance and response system that can prevent re-establishment of indigenous transmission. While there is no sustained human-to-human transmission of zoonotic malaria parasites (i.e., while it remains monkey-to-human transmission), it does not appear that this will impact on this certification process.

Ultimately, the expansion of humans, their associated activities (e.g., agriculture, forestry), environmental changes and the warming climate are increasing the chances of interactions between monkey reservoirs, mosquito vectors, and humans. Thus, there are serious implications for land usage. Where the natural habitat of monkeys, which are known hosts for zoonotic malaria parasites, is converted for agricultural use and human settlement, serious consideration needs to be given to malaria risk mitigation strategies for residents of these areas to reduce the threat of zoonotic malaria.

GLOBAL GRANT

Postdoctoral Fellow for the Malaria Vaccine Project

This is a wonderful opportunity for a young scientist to work with Professor Michael Good and Associate Professor Danielle Stanic in one of the outstanding centres of the world for malaria vaccine development. The Host sponsor for the Global Grant Postdoctoral Fellow will be Rotary District 9640 and the International sponsor will be the Rotary Club of Key Biscayne (District 6990). Both of these Districts will provide DDF funds and additional DDF has been donated by District 6490 (Illinois). We have already raised nearly AUD \$30,000 in donations for the Global Grant and a further \$70,000 is needed. The Global Grant of AUD \$140,000 will be matched by Griffith University to provide a two-year Postdoctoral Fellow opportunity.

If you are interested in helping us with the Postdoctoral Fellow please donate in the usual way to the Malaria Vaccine Project [RAWCS Project 24 (2022-23)] and write the following in the section:

**REQUEST TO PROJECT MANAGER:
MALARIA POSTDOCTORAL FELLOW**

We would also welcome any further offers of DDF from a Rotary District in Australia or overseas.

If you'd like someone to speak to your club or district on the Malaria Postdoctoral Fellow, please contact:

Ambassador Coordinator, Bruce Howlett
Email: b1andK1@outlook.com

or Project Manager, PDG Graham Jones
Email: graham.a.g.jones@gmail.com

SPECIAL REQUEST FOR DONATIONS

Hi Everyone:

As you are aware, the Malaria Vaccine Project has established a Global Grant (GG #2342550), to provide a Postdoctoral Fellow (Scholar) to work with Professor Michael Good and A/Professor Danielle Stanisc over the next two years. It is an incredible opportunity for a young overseas (as required by TRF) scientist who already has a PhD to work in one of the best malaria research centres in the world. The scholar will come in at an opportune time as the field-deployable version of PlasProtect undertakes its final preliminary studies and then moves to human efficacy trials possibly in an endemic country.

The Global Grant will provide AUD \$140,000 and Griffith University will match that for the two-year scholarship. I am delighted to say that, with DDF from our District and two Districts overseas together with generous donations from Rotary Clubs and individuals, we have reached \$117,000 of the \$140,000. We need a further \$23,000 to complete the grant and set this special scholarship in train.

I would like to submit the Global Grant application as soon as possible and certainly before the end of June. This is a SPECIAL REQUEST for help from Clubs and members in our District who have been so generous to MVP. Also, to any Clubs or members who have not been unable to help previously. If we could get 20-30 Clubs to make a donation it would lighten the load for everyone.

Please help us with any donation that you can.

The Donation must be made through our website (RAWCS): www.malariavaccineproject.com

As you submit any donation, please write Malaria Vaccine Postdoctoral Fellow in the section: REQUEST TO THE PROJECT MANAGER.

If you need any help or want anyone to speak to your club, please contact either Graham or Bruce.

With warm wishes and our sincere appreciation for all your help with this special project.

Graham

PDG Graham Jones AM
Project Manager of the Global Grant Postdoctoral Fellow
Phone: 0406 040 038
Email: graham.a.g.jones@gmail.com

Bruce

Bruce Howlett
Deputy Chair MVP & Ambassador Coordinator
Phone: 0417 762 878
Email: b1andk1@outlook.com

AMBASSADOR'S REPORT

Bruce Howlett

There are now four Ambassadors available to Rotary Clubs should they wish us to visit their Club and experience an up-to-date presentation on the Griffith University Malaria Vaccine Project.

NSW:

Past District Governor Jeff Egan
Email: jeffegan04@gmail.com
Mobile: 0438 727 315

Past District Governor Harry Bolton
Email: harry.bolton@bigpond.com
Mobile: 0409 635 024

QLD:

Past District Governor Ross Smith
Email: rossatburleigh@gmail.com
Mobile: 0438 930 042

Vice Committee Chair Bruce Howlett
Email: b1andk1@outlook.com
Mobile: 0417 762 878

We have recently visited the following Clubs and thank them for the opportunity give a presentation:

- Beaudesert
- Broadbeach
- Coomera Valley
- Jimboomba
- Kingscliff
- Mt. Warning

Recent donations have been received from Blackwood (District 9510, South Australia) and Broadwater Southport; our sincere thanks.

PDG Graham Jones AM continues to help us as a Roving Ambassador. He will give a zoom talk on Friday March 17 to the Rotary Club of Key Biscayne in Florida: it will be a breakfast meeting for them but a midnight presentation for Graham. In addition to talking about the Malaria Vaccine Project, he will discuss the Global Grant Postdoctoral Fellow that Key Biscayne Rotary Club is supporting as International Sponsor. Stephen Baker and two other members of their Club are the International Support Team for the Global Grant. Key Biscayne does wonderful work in malaria by sending volunteer teams to South America with long-lasting insecticidal nets (LLINs).

The presentation to the Rotary Club of Key Biscayne went extremely well and they have offered wonderful financial support. Their Club expects to give \$6,000-\$8,000 to the Postdoctoral fellow and hopes that their District will match this with district-designated-funds (DDF). A big THANK YOU to the Rotary Club of Key Biscayne for all their support.

FINANCIAL UPDATE

Outcome for 2022 calendar year

The year ended on a very positive note with contributions for the calendar year reaching a record \$1,143,416 taking our fund raising total to \$2,456,565

2023 Year to date

Calendar 2023 has started slowly with donations to 15 March totalling just \$5,057 taking our fundraising total to \$2,461,622

Our sights are now set on reaching the \$2.5 million milestone and then many more milestones as we work towards the ultimate goal.

Rotary Club contributions

The Rotary Club of Canberra recently became the twelfth Rotary Club to exceed the \$10,000 donation mark and earn a place on the recognition Board at The Institute of Glycomics,

Hope Island continues to lead the way at \$82,715 followed by Surfers Paradise \$31,697 and Hornsby \$28,518

Postdoctoral Fellow

As part of our overall fundraising effort, donors may choose to direct specific contributions towards a Rotary Foundation Global Grant Scholarship which will fund a Postdoctoral fellow to join the scientific team working on the vaccine.

The total cost of the two-year Postdoctoral Fellow is estimated to be \$280,000. The Global Grant will raise \$140,000 and Griffith University has generously agreed to match this amount. A great partnership!

We need to match this contribution and the balance will come from a Rotary Foundation Grant. Past Chair Graham is writing the application and managing the Global Grant. Funds to hand currently sit at \$117,000. Only \$23,000 to go!! Please help in any way you can.

WORLD MALARIA DAY

25 APRIL 2023



*Scan the QR code to donate to the
Malaria Vaccine Project*





Finish the Fight Global Congress **Against Malaria** 25-26 May 2023

REGISTER NOW - Don't miss out

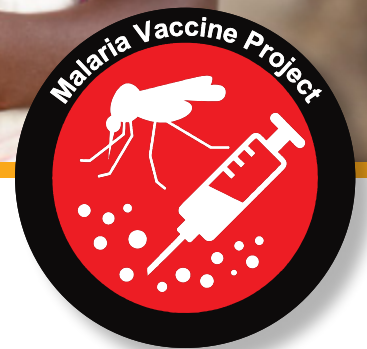


The Global Malaria Congress 2023 (GMC2023) on May25/26 in Melbourne, Australia is **filling up fast**, so don't miss out on attending by [REGISTERING NOW.](#)

The GMC2023 is bringing People of Action together to Finish the Fight Against Malaria. The GMC2023 speaker content and program is designed around our sub themes of "**Today, Tomorrow, Together**" on the path towards Malaria elimination. **Malaria is treatable and curable, yet a child still dies of it almost every minute.** This is the tragedy we must stop together.

Join us and add your voice to [Finish the Fight.](#)

The Global Malaria Congress 2023 is Proudly brought to you by Rotarians and International Partners.



OUR PARTNERS

