



THE GUY FOUNDATION

## NEWSLETTER: SEPTEMBER 2022

Welcome to the 1<sup>st</sup> edition of The Guy Foundation newsletter! We hope you enjoy reading it, do get in touch with any suggestions for future editions.

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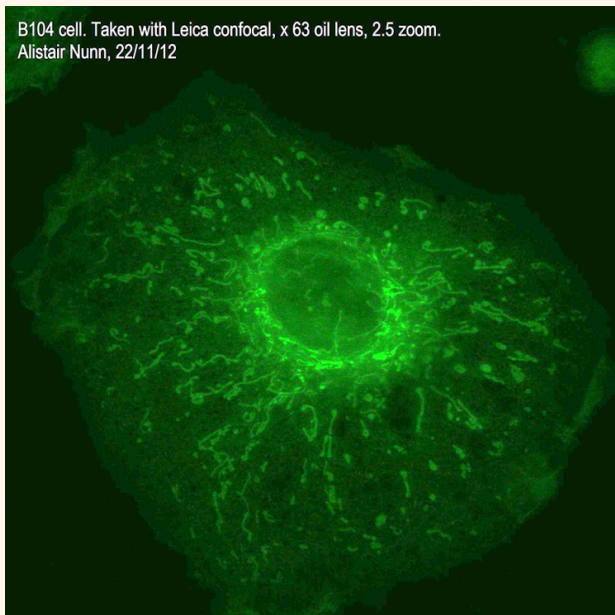
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### THE GUY FOUNDATION 2022 AUTUMN SERIES COMMENCES ON 21 SEPTEMBER



B104 cell. Taken with Leica confocal, x 63 oil lens, 2.5 zoom.  
Alistair Nunn, 22/11/12

The **Autumn 2022 Series** will be the sixth series of The Guy Foundation online lectures. The seminars have proved to be a fruitful space for discussions relating to quantum biology, and indeed we are aware of a couple of new collaborations that have resulted. In the upcoming Autumn Series, which will run from 21st September to the 30th November, the focus will

be on mitochondria. The Guy Foundation has a long history of interest in mitochondria and how quantum physics might be implicated in their function. The Autumn Series will thus explore how mitochondria respond to different conditions – including COVID – and how they have optimised their function with respect to Earth's specific magnetic and gravitational field and the implications this optimisation may have for space travel and settlement. We are delighted with the speaker line-up and very much look forward to their talks - [view the programme here](#).

#### **Quantum Mitochondria: Energy, information and implications for health and disease**

All sessions 15:00hrs – 17:00hrs UK-time on Zoom



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### THE GUY FOUNDATION YOUTUBE CHANNEL

As our online lecture series have grown, the number of recorded talks on our website has grown too. We have thus decided to set up a dedicated [The Guy Foundation](#)



[YouTube channel](#), you can [subscribe here](#) and it will alert you when a new talk is uploaded. The videos will remain available to view from our [website](#) and will hopefully serve as a useful resource for those wishing to find out more about quantum biology.

### BRINGING PHYSICS TO THE HEART OF THE BIOLOGY LABORATORY

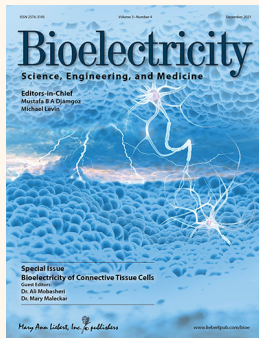
The Guy Foundation's first two research grants were for projects that aimed to investigate biophoton emissions in biological systems. Although funded as two separate projects, the ultimate aim was an [integrated programme](#) of work. We are pleased to announce that in the first stage of the project Professor Stan Botchway and Dr Alasdair Mackenzie have developed a working biophoton detection kit at Harwell. This is going to be moved to Professor Jimmy Bell's laboratory at the University of Westminster for the next stage of the work, where biological samples will be tested by Dr Rhys Mould. Dr Alasdair Mackenzie will focus on the entangled-photon work at the Central Laser Facility at the Harwell campus in Oxfordshire. The Guy Foundation believes in the power of interdisciplinary collaboration and is excited to see it in action.



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### NEW PAPER PUBLISHED IN BIOELECTRICITY JOURNAL



The Guy Foundation's Director of Science, Professor Alistair Nunn, has recently published a new **paper** in the peer reviewed journal Bioelectricity. The paper, entitled "Bioelectric Fields at the Beginnings of Life", hypothesises that electric fields provided an "ethereal skeleton" around which living systems organised themselves. The research builds on the growing evidence that electric fields play an integral role in shaping biological organisms.

### BOOK CORNER



The Guy Foundation has long been interested in Professor Nick Lane's research into mitochondria and the biochemistry of living systems, inviting him to give one of the first presentations for the **online lecture series, in Autumn 2020**. We are very pleased to see that he has written a new book, published in July, entitled *Transformer: The Deep Chemistry of Life and Death*.

As Professor Alistair Nunn put it:

"The book is – most simply and profoundly – about a fundamental biochemical process known as the Krebs cycle and what this means for the development of life on Earth. It is an easily digestible and informative read for both a scientific and non-scientific reader alike. Critically, it outlines a deep simplicity to the animating cycle of energy and matter that constitutes living organisms, which links the origins of life to ageing and perhaps, consciousness itself."





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### INAUGURAL GORDON RESEARCH CONFERENCE ON QUANTUM BIOLOGY, TEXAS USA, MARCH 2023



The Guy Foundation is delighted that an inaugural **Gordon Research Conference (GRC) on Quantum Biology** is to take place from 19 – 24 March 2023, in Galveston, Texas. The conference, chaired by Dr Youngchan Kim (Leverhulme Quantum Biology Doctoral Training Centre at the University of Surrey) and Professor Clarice D. Aiello (QuBiT Lab, UCLA) will bring diverse research fields into direct contact and foster new knowledge and collaboration. Two of The Guy Foundation's scientific advisors, Professor Stan Botchway and Dr Philip Kurian, will be directly involved in the conference, as speakers and discussion leaders. The Guy Foundation has **donated US\$10,000** towards the conference and is pleased to support this forum for discussion and interaction between scientists, towards the development of the multidisciplinary field of quantum biology.

### PHYSICS OF LIFE MEETING, HARROGATE UK, MARCH 2023

Harrogate will play host to the **Physics of Life 2023 conference**, which will take place from 27 – 30 March 2023. The in-person meeting will showcase research from the interface of physics and biology. The conference will include a broad range of speakers and topics, and plenty of opportunity for networking among academic, industrial and medical scientists.



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### BLUE SKIES AND BIG IDEAS

The Guy Foundation team were pleased to be among the attendees at the Blue Sky Thinking Workshop 1: [The Arrow of Time](#), which took place online on 7th July. Organised by the University of Surrey as part of the Arrow of Time project, the workshop was the first of three annual one-day workshops, promoting discussion around fundamental topics in theoretical physics, philosophy and biology.

### QUANTUM BIOLOGY MEETINGS AND SEMINARS

The new [Big Quantum meetings programme](#) has been launched for meetings up to February 2023. These well-attended meetings are convened by the QuBiT Lab at UCLA and the University of Surrey. Dr Philip Kurian's [Quantum Biology Lab](#) at Howard University and Dr Michal Cifra's [Bioelectrodynamics group](#) at The Czech Academy of Sciences have also had a number of very interesting online presentations. If you know of other relevant meetings and seminars, do let us know about them.

### WEBSITE – NEW QB CENTRES PAGE

One of the aims of The Guy Foundation is to support the community of scientists and those interested in quantum biology research. To facilitate this, we have added a new page to the website, which lists [quantum biology centres](#) with a link to their websites. The page also notes those groups that offer PhD programmes or host online scientific seminars. We have included centres or labs focusing on quantum biology research that have a dedicated website. If you have suggestions for additional centres to add, please let us know.



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### QB COMMUNITY NEWS



We have heard about some recent migrations, which we thought you would be interested to hear about.

The **University of Calgary** is a growing hub for quantum biology and we were delighted to hear Dr Vahid Salari is now a full-time associate researcher and subleader of the quantum biology group in the laboratory of Professor Daniel Oblak, collaborating with Professor Christoph Simon's theory group. He was also co-affiliated with Howard University as a part-time research associate, having recently completed a collaboration with Dr Philip Kurian's group at the Quantum Biology Laboratory.



In another co-affiliation, congratulations to **Professor Francesco Petruccione** who has taken up a new position at Stellenbosch University, while maintaining an association with UKZN.

Congratulations are also due to **Karl Morten** who has been appointed as an Associate Professor. Karl is Director of Graduate



Studies and Principle Investigator in the Nuffield Department of Women's and Reproductive Health, University of Oxford. The Morten group have a long-standing interest in understanding the role of mitochondria in health and disease. We're delighted to hear Karl's work has been recognised and we look forward to his talk in the 2nd session of the **2022 Autumn Series** on 5th October.



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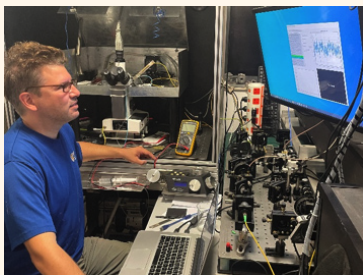
We were also pleased to hear recently that two organisations have received non-profit status.



**The Copernican Project** led by Steve Thorne and centred in Berkeley, California has been granted non-profit status to pursue

funding for their bio-gravitational experimental programme. Steve is putting together an international team to investigate a possible coupling between metabolic processes and strain effects generated by periodicity in the gravitational potential due to Earth's orbital motion. Anyone interested in advising or collaborating should contact Steve through their website.

David Racine has set up **QuantBioLab**, a non-profit organisation that will promote and undertake scientific research in



Quantum Biology and its applications. David is moving his laboratory from China to Québec city later this month, where QuantBioLab will be based. Cristoforo Silvestri has joined the Board of Directors.



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We hope you've enjoyed this first edition of the newsletter, do get in touch with any news or suggestions, and we look forward to seeing you online soon.

Best wishes

**The Guy Foundation team**



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