PSGR

New Zealand Charitable Trust

2025 UPDATE

This Update aims to inform members and colleagues – and act as a go-to summary of our recent work.

For over 25 years the Physicians and Scientists for Global Responsibility New Zealand Charitable Trust (PSGRNZ) has produced reports and submitted to government Bills and Inquiries.

All PSGRNZ's submissions are available to the public on our website **PSGRNZ.org.nz**. You can find us on **LinkedIn**. To search for us on Twitter, Instagram BlueSky, YouTube, Substack, Spotify. Just use our handle: @PSGRNZ (make sure you put the 'NZ' in).

The only consistent PSGRNZ social media 'handles' we could secure are @PSGRNZ – which is why we will more frequently refer to *PSGRNZ* – to reduce confusion when searching online. Note, our full name is Physicians and Scientists for Global Responsibility New Zealand Charitable Trust.

THANK YOU!

Thank you to the many members who have supported us with advice, insight and corrections for our research papers and submissions this year. This voluntary support is essential to achieve quality by the final draft.

SUBMISSIONS

We've made a couple of major submissions since we last sent out our newsletter. **Our summaries of submissions can be read from page 3 onwards.**

MEMBERSHIP

Please – without members PSGRNZ cannot do this work! We've kept our fees deliberately low because your membership is important to us.

Membership information: **HERE**.
Email: info@PSGR.org.nz
KiwiBank Tauranga 38-9001-0432703-00

TRUSTEE RETIRING

PSGRNZ have reluctantly accepted Jean Anderson's June decision to retire as a trustee. Jean occupied a pivotal 'behind the scenes' role for 20 years, from managing memberships and administration, to working with trustees and members to research and draft reports, papers and submissions, overseeing contributions for the regular PSGR pages in Organic New Zealand, and maintaining the PSGR website.

Jean and her husband Robert were founding members. **Robert Anderson** held a combined honours degree in Physics and Chemistry, and a PhD in Science Education. On moving to New Zealand, Robert taught Chemistry, Physics, Laboratory Technology and Nuclear Medicine at tertiary level while Jean occupied roles in business, in addition to raising 3 children.

In retirement, supported by Jean, Robert gave public lectures throughout New Zealand on genetic engineering, other scientific and environmental issues, and peace and social justice, in support of the public's right to be independently informed.

After Robert's passing in 2008, Jean continued in her role, before handing the reins to Jodie Bruning in 2019.

Charity registration no. CC29935

PSGRNZ ADVOCACY (2025)

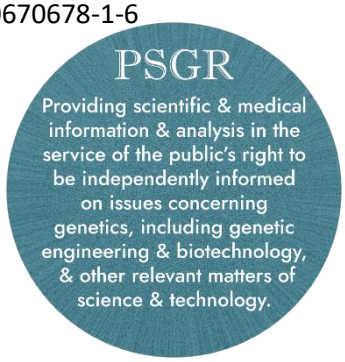
Tip for reading reports: PDFs can be easily uploaded onto e-Rreader devices such as Kindle for easy reading.

3 WHITE PAPERS / MAJOR REPORTS

December 2025. **Chlorpyrifos Report PDF**: The Erosion of Risk Assessment practice at the New Zealand Environmental Protection Authority, and the Australian Pesticides and Veterinary Medicines Authority. (2024). In-depth 53-page report.

PSGR (2025) When powerful agencies hijack democratic systems. **Part I: The case of gene technology regulatory reform**. Bruning, J.R., Dommisse, E.. Physicians & Scientists for Global Responsibility New Zealand. ISBN 978-1-0670678-0-9.

PSGR (2025) **When powerful agencies hijack democratic systems. Part II: The case of science system reform**. Bruning, J.R.. Physicians & Scientists for Global Responsibility New Zealand. April 2025. ISBN 978-1-0670678-1-6



Technologies and their emissions can present a public or environmental health hazard, because these technologies cannot be avoided by the public and they can bioaccumulate and present a health risk.

The public must trust that the government is following the best available science when governments steward chemicals and assess risk from emissions. Officials must act fairly, transparently, and accountably when carrying out their functions (see discussions **here**, **here**, **here**).

Over time the scientific literature builds a broad picture of toxicity and harm, but sometimes regulatory agencies do not update themselves on the new known risks. Regulatory norms, protocols and guidelines can play an important role in preventing agencies from evaluating new science, and can therefore act as a barrier to government knowledge.

CHLORPYRIFOS

Chlorpyrifos serves as an important case study of legacy chemicals where the scientific literature builds a broad picture of toxicity and harm, but where regulatory science has failed to incorporate the published risk data to find that the product should be withdrawn or severely restricted.

This example shows how regulators will class similar chemicals together when it suits them, but discretely ignore chemicals in the same class when it does not suit them.

PSGR emphasize that the chlorpyrifos product that is most likely to pose a risk to non-growers, chlorpyrifos-methyl has not been restricted. This product is a grain storage fumigant.

The **APVMA** and NZEPA have deliberately separated out and failed to disclose the structural similarities of chlorpyrifos and chlorpyrifos-methyl, and the evidence that combined dietary exposures to both organophosphate pesticides enhance risk, particularly pre- and neonatally.

Chlorpyrifos (CPY) chlorpyrifos-methyl (CPY-M) are structurally similar, they have similar toxicity, including by inhibiting the enzyme acetylcholinesterase (AChE). Yet the New Zealand and Australian public will know nothing of chlorpyrifos-methyl, despite high permitted residues in staple grains. The European Food Safety Authority (EFSA) recognises these risks, as does the U.S. Environmental Protection Agency (USEPA).

Higher residue levels of CPY-M are permitted on grains, than of CPY on fruits and vegetables. CPY M is commonly detected in the Australian Total Diet study, in flour-based items such as biscuits and bread.

New Zealand's **Nov 14, 2024 call** followed other countries.

In July 2025, the NZ EPA (**APP204694**) announced that chlorpyrifos would be phased out:

- Immediate revocation: not in use approvals.
- Products for grass grub: 18-month phase-out.
- All other products: 6-month phase-out.

Chlorpyrifos-methyl was not included in this assessment.

Chlorpyrifos-methyl is not permitted in Europe.

EFSA have revoked approvals for both CPY and CPY-M, due to genotoxic and developmental risks. EFSA determined that the 'epidemiological evidence supports the developmental neurological outcomes in children for both chlorpyrifos and chlorpyrifos-methyl.' EFSA also concluded that the genotoxic potential of both CPY and CPY-M could not be ruled out (unclarified). Because of this potential risk, no dietary reference values could be established, effectively resulting in a ban for CPY and CPY-M (2019b).

This information was sent to the NZ EPA. The complete report, discussing long-term regulatory failure

2024 Report: The Erosion of Risk Assessment practice at the New Zealand Environmental Protection Authority, and the Australian Pesticides and Veterinary Medicines Authority. The case of chlorpyrifos and chlorpyrifos-methyl. December 2024.

Chlorpyrifos: PSGR Recommended that:

- An inquiry is held to assess New Zealand risk assessment practices are fit for purpose, including assessment of the role of epidemiological data, publicly available data and dietary burdens.
- The New Zealand government urge Australia to revoke all tolerances on chlorpyrifos-methyl in order to stop the practice fumigation of cereal grains.
- Applications on brassicas cease as other treatments, such as ozone (O3) are safer.

The report notes that the NZEPA's risk assessment framework may have been watered down in recent years, following the publication of a modelling-based Risk Assessment Methodology document, which fails to require the authority to consider the epidemiological literature, take seriously published literature supplied by the public, and fails to provide directions and reasoning for officials to support a precautionary approach when the data is uncertain but potentially demonstrates risk and/or hazard.

The NZEPA does not know whether pregnant women, babies and children remain exposed to chlorpyrifos. Proxy risk-assessments have solely revolve around re-entry risk to a sprayed agricultural crop.

GENE EDITING / GENE TECHNOLOGY REGULATORY REFORM

The government's proposal to relax GMO (gene editing, or gene technology) regulation in August-December 2024 took up a large proportion of PSGRs work from August 2024-April 2025.

In August/September 2024, following the Food Standards Australia New Zealand (FSANZ) proposal P1055 which would alter the Food Standards Code (discussed in the **2024 newsletter**), PSGR reviewed FSANZ science papers to evaluate whether FSANZ had undertaken formal risk assessment on the potential organisms that would fall outside of the Code (and not be regulated) as per their proposal. I.e. . GMOs would fall outside the Code if they did not contain novel DNA or novel protein.

PSGR considered it was important to understand whether FSANZ had conducted a risk assessment to scientifically analyse if the new Code could impose a risk to the public – i.e. was it safe. FSANZ was reflecting biotechnology industry claims by stating that gene edited GMOs would be as safe as conventionally-bred organisms and hence considered non-GM.

PSGR's P1055 report showed that in the 6 years prior, FSANZ never once undertook a formal risk assessment to assess whether the GMOs that would fall outside regulation (as per their proposal), would impose a risk.

Also in August 2025, the Ministry for Business, Innovation and Employment (MBIE) released a **media pack (August 2024)**, a **Regulatory Impact Statement (RIS)** and in **December 2025 introduced the Gene Technology Bill**, with public consultation from December-April 2025.

Some **15,000 people responded**, and **GEFree NZ reported that** 97% opposed the Bill.

PSGR's Gene Tech Bill work involved 3 phases:

i. Research of underpinning policy which resulted in our **submission to the Gene Technology Bill.**
ii. Recognition policy was deficient, resulting in a major **April 2025 'Hijacking Democracy' Report**.
iii. Complaint to the **New Zealand Ombudsman (April-July 2025).** Complaint declined.

Over this time related articles were published on Substack and the Daily Telegraph, interviews were held (e.g. **here** and **here**), MPs were **emailed December 2024** to suggest that the Bill be put on hold pending the outcome of European decisions, and to **recommend a public enquiry.** A similar letter was emailed to senior public law experts in NZ law schools, which attempted to raise attention to the problems identified in our report. No response was received.

NB. Historically in accordance with transparent government, when a new Bill was introduced, all of the accompanying and relevant policy literature would be uploaded onto the Bill's Parliamentary page in the 'Reports/Digest' section (e.g. **here**). PSGR emailed Parliament to ask why there was no information in the Gene Technology Bill digest section was empty.

We were advised that this practice stopped in 2022.

Parliamentary officials believe it is enough that the links are on the Bill page. PSGR do not agree as only people with legal expertise can know this.

NB. While PSGR emails elected officials we do not select political parties for targeting. We are a registered charity and do not lobby political parties. We do accept most invitations to present information.

Gene Technology Bill – April submission

Upon researching the underpinning policy that supported the Gene Technology Bill and **RIS**, PSGR became aware of many examples where the policy formulation process was neither transparent and accountable, nor fair and just.

The extent of short circuiting good process, resulting in a **2-part submission to the Health Select Committee**:

Part I: Deficient Policy Formulation: details ways in which the Bill's drafters have drafted text to narrowly restrict Regulatory powers and prevent wider regulatory scrutiny. This not only leaves New Zealand vulnerable to slow moving problems, it would result in the Regulator having insufficient scope and inadequate information in emergency situations that would enable the Regulator to assure the health and safety of people.

Part II: Recommendations including critical analysis of Bill text: Makes in-depth recommendations and outlines problems and gaps in the Bill text.

First 7 points in PSGR's April Submission (pages 4-5):

1. The policy formulation processes, underlying policies and the Bill text will likely contribute to a decline in trust of the Crown and impair public trust in the capacity of elected and administrative officials to carry out their duties with respect to their constitutional and administrative law obligations.

2. The Bill undermines public law norms of fairness, transparency and accountability. The policy formulation process has been particularly poor, narrowly contrived and short term.

3. This Bill concerns the stewardship of an emerging technology which is plagued by uncertainty relating to risk and impact. The policy documentation does not and cannot demonstrate evidence of 'systematic and evidence-informed policy development'.

4. PSGR consider that the processes underpinning this Bill are so poor that they may contradict and undermine public law obligations, and obligations drafted into the **2023 Cabinet Manual**, **2021 Legislation Design and Advisory Committee Guidelines**.

5. Regulators can only safely steward technology if they can understand and assess risk using a variety of interdisciplinary lenses4. The policy contains no evidence of:

a. A methodologically robust risk assessment.
b. An environmental impact assessment.
c. An economic risk-benefit assessment.
d. A biosecurity assessment. The potential for nefarious actors to deploy gene edited technologies for nefarious benefit has not been assessed. (An online search failed to identify biosecurity concerns.)
.i. An evaluation of similar legislation in crucial key export markets to identify if this Bill would harmonise with their legislation and/or would be considered best practice.

6. The RIS and the Bill are silent on best practice. The RIS did not evaluate best practice risk assessment or monitoring activities, including different approaches for monitoring the natural environment, versus agricultural produce.

7. The 'out-of-date' claims are parochial and based on New Zealand government documents, not a review of best practice globally. MBIE claim in the Regulatory Impact Statement (RIS) that assessment of economic

benefits is 'out-dated'. New laws and new regulations must be justifiable on the basis that society will benefit. To put it simply, benefit of a law should outweigh the cost. This encompasses claimed economic benefits. MBIE may recognise that economic justification is impossible. There is evidence that **biotechnology investment return is lower than investment in food**. In addition, **globally dominant biotechnology 'whales' tend to dominate**, with few products bringing desired returns.

Gene Tech Reform – Major PSGR White Paper

The more PSGR evaluated the underlying policy process, which included reviewing formal policy documents and answers to OIA requests, the more PSGR understood that MBIE was not a suitable agency to administer gene technology legislation.

It was not only the complete absence of risk assessment to underpin the legislation for a regulatory framework – how can a regulatory framework assess risk if no risk evaluation was held to confirm the appropriateness of it?

It became evident that MBIE's control of science funding produced a major conflict-of-interest. Most scientists who were speaking up and urging deregulation were scientists who were directly funded by MBIE.

MBIE controlled science policy – which prioritises science research for innovation and creates barriers to basic research to identify risk pathways.

We then authored a major white paper:

> PSGR (2025) When powerful agencies hijack democratic systems. **Part I: The case of gene technology regulatory reform**. Bruning, J.R., Dommisse, E.. ISBN 978-1-0670678-0-9.

A preponderance of failures/deficiencies included:

- An inappropriate problem definition which focussed on economic benefit, and not risk stewardship.
- The Minister directing officials **not** to consult with the public in early policy development process, like the Policy Commissioner recommended.
- The Minister directing officials not to give stakeholders the option of reforming the HSNO Act.
- The Minister actively propagandising deregulation and out-dated claims in public media.
- That the Minister was also the Attorney-General.
- Misleadingly stating HSNO Act sections were outdated when their cited references did not provide evidence of this claim.
- No cost-benefit and economic analyses.
- No assessment of biosecurity risk from gene transfer.
- Science experts who lacked experts in regulation, particularly of GMOs.
- Prioritising stakeholder consultation to predominantly weigh in favour of people with conflicts of interest who were in favour of deregulation.
- Pretending a short time frame was necessary when there was no public-good need to advance the legislation swiftly.

Please read **PSGR's Gene Tech Report** to delve deeper.

August 2025 Gene Tech Panel with Jon Carapiet, Jodie Bruning and Tiffany Tompkins on Reality Check Radio. (Please note we welcome interviews with all media.)

ROYAL COMMISSION: COVID-19

PSGR's Submission to the Phase 2 enquiry (PDF).

***NB.* PSGR has not been invited to present to the Commissioners.**

Our focus throughout COVID-19 was on the quality of scientific information that was being used to:

- Understand the risk of hospitalisation and death presented by SARS-CoV-2 by age, gender and health status.
- Evaluate how this risk changed over time, including by season, as the infection moved through the population.
- Evaluate the risk of non-pharmaceutical interventions, both long- and short-term – compared with the risk from infection.
- Evaluate the risk of pharmaceutical interventions, both long- and short-term, compared to risk from infection.

Prior to COVID-19, PSGR understood that the WHO had recategorized the announcement of a pandemic away from a focus on hospitalisation and death – to a focus on infectivity and case numbers.

Historically, public health actions are taken to lessen suffering, this includes measures to prevent severe illness that would result in hospitalisation and death.

By convention, to ensure informed consent, physicians must take into account the individual vulnerabilities of a person, and these vary tremendously, by age, gender, health status and other personal characteristics.

As such, our **submission** to the **2025 Royal Commission COVID-19, Lessons Learned** enquiry (**current terms of reference**) revolved around our concern that COVID-19 was never specifically defined as a disease resulting in hospitalisation and death, and that, from early in 2020, official concerns revolved around infection case counts.

Therefore, PSGR were concerned that the response could not be risk proportionate and evidence-based, as risk of hospitalisation and death, by age, gender and health status, was never articulated by officials in the New Zealand government.

Our submission to the Commissioners emphasised our concern that members of Parliament were never appraised of the vaccine risks and the questionable efficacy, and that the Minister for COVID-19 did not systematically evaluate the risk-benefit profile, as the Minister released mandates, based on what was known in the scientific literature at the time of mandate release.

PSGR provided evidence to the Commissioners of the poor policy formulation and that important relevant considerations had not been taken into account.

We emphasised that the Health Act 1956 requires that officials at all time act to improve, promote and protect public health, and that any legislation produced under that Act must be consistent with that purpose.

As our **submission** discloses, Pfizer and BioNTech had produced a report in February 2021, that was shared with participating governments, that revealed an extensive range of BNT162b2-associated harms.

New Zealand's scheduled vaccine rollout which would produce staged mandates was formalised in April 2021.

Officials in the New Zealand government must have been advised by Pfizer of this unprecedented adverse side effect profile, but this did not prevent mandates and a traffic light campaign being implemented.

Informed consent could not be assured. There was never a risk-benefit evaluation by age, gender and health status as each mandate tranche was released, and people could not access basic services and employment without acquiescing. We **noted (page 4)**:

"The suspension or derogation of certain civil and political rights is only allowed under specific situations of emergency that 'threaten the life of the nation'. Some safeguards must be put in place including the respect of some fundamental rights that cannot be suspended under any circumstance" (Office of the High Commissioner Human Rights, 2020)

There was no effort to assess the risk of hospitalisation and death by age, gender and health status.

Unlike primary legislation, secondary legislation does not require a formal policy document to be produced which provides a rationale for the legislation.

Part [5] of our submission to the Royal Commission included PSGR's recommendations for a future health emergency (from **page 41 onwards**).

PSGR would welcome a chance to present to the Royal Commission COVID-19 enquiry.

SCIENCE SYSTEM REFORM

MBIE has a strategically critical role over the production of knowledge in New Zealand, via its oversight over science system policy and funding. This oversight was quietly secured through secondary legislation, not an Act of Parliament.

The Hijacking Democracy Case of Science System Reform report highlights important issues which have been underemphasised and neglected in government and media communications.

> PSGR (2025) **When powerful agencies hijack democratic systems. Part II: The case of science system reform**. Bruning, J.R.. Physicians & Scientists for Global Responsibility New Zealand. April 2025. ISBN 978-1-0670678-1-6

Publicly funded science plays a key role in shedding light on social, public health, environmental, and infrastructure problems. It can highlight patterns of risk and harm whether over the shorter or longer term.

Independent scientific enquiry assists society, elected members and officials to understand what is going well, and what is not going well.

Often, scientists who highlight risks to environmental and human health are polarised or their findings are downplayed because it is believed that their findings will 'harm the economy'. However, harm to natural resources, for example water so polluted that it can harm agriculture or taint consumer goods, soil that is contaminated by heavy metals, or health risks to humans that result in fatigue, illness and missing workdays, also harm productivity.

We are less innovative when risks are not highlighted – we can fall behind 'healthier' jurisdictions who move more quickly to adapt following pre-emptive regulation. We lack a risk signal that can shift mindsets.

MBIE, the economic growth agency has extraordinary oversight over the production of knowledge in New Zealand.

Our paper shows that MBIE controls science what science is funded by ensuring that funding proposals for patentable innovations are prioritised. Meanwhile, basic research to identify the drivers of risks and harm pathways to human and environmental health are not prioritised in policy and are therefore not funded.

MBIEs science system policy, as our Report demonstrates, drafts out public good scientific research. As New Zealand has increased by over 30%, this sort of research has stagnated - for three decades, even as non-communicable disease in younger and younger age groups have surged.

It is difficult to understand the extent of chemical and heavy metal (**novel entity**) pollution, from landfill, from industrial sources, and emissions from infrastructure, including telecommunications towers, - to wastewater treatment plants – as there are no long-term pathways for funding and there are no clear, publicly accessible websites that shed light on the impacts, beneficial or harmful, from the authorisation and release of technologies and their emissions.

The Case of Gene Technology Reform demonstrated that scientists and organisations who were funded by MBIE, would then advocate for deregulation of GMO legislation – and that MBIE was content to use scientists that it funded as experts in its endeavour to secure control over GMO/gene technology regulation.

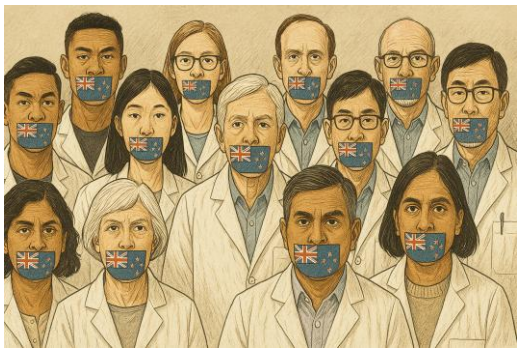
This is not good governance.

PSGRs interest in researching the science system was further spurred by **Judith Collins January 2025 announcement of the largest reset of the science system in 30 years**, and MBIE's corresponding convening of a '**group of experts**' a Science System Advisory Group (SSAG) who were established to

> *'provide advice to the government on strengthening the science, innovation and technology system'*.

A SSAG **August 2024 Report** had been published.

Later, in April 2025 SSAG held a Phase 2 Consultation. PSGR responded with a **short submission**.



Please read **PSGR's Science System Report** to delve deeper into this issue. We welcome comments.

HIJACKING DEMOCRACY: RECOMMENDATIONS

Our two Hijacking Democracy papers resulted in PSGR making 2 major recommendations:

1. An Ombudsman Enquiry

However, despite **supplying detailed information,** PSGR's Complaint to the Ombudsman was not upheld as the Ombudsman decided that PSGR had 'no personal interest'.

2. Public Inquiry: Science System

PSGR **recommended (*see Report, page ii*)**

'That a transparent and public inquiry is undertaken to evaluate the past, present and future role of New Zealand's RSI&T system.

This inquiry must be independent, impartial and fair. It may be in the form of a public inquiry or a Royal Commission (Inquiries Act 2013, s.6). The terms of reference/ list of recommendations can be **found on pages 53-56**.

This inquiry is necessary because there is evidence that the current science system is inadequately resourced to meet the objectives of society at large; and that the science system reforms that are currently underway (2023-2024) have excluded any evaluation or discussion on this issue.

These current reforms will further direct the RSI&T system away from optimising science and research designed to identify and address domestic problems and challenges.

PUBLIC INQUIRY: SCIENCE SYSTEM

PSGR recommend that the RSI&T system Inquiry problem definition address:

'the capacity of the publicly funded RSI&T system to demonstrably contribute to public-good knowledge, and in doing so serve the public purpose and support the wellbeing of New Zealand, her people, resources and environment'.

PSGRNZ INTERVIEWS

IN CONVERSATION WITH SCIENTISTS & DOCTORS

- Audio: Podcast Spotify – search PSGRNZ
- Audio: PSGRNZ.Substack.com
- Video: YouTube – search PSGRNZ

We've been conducting interviews with scientists and doctors who are advocating for game changing approaches to how we *do* science, how we treat illness and how we *protect* human & environmental health. These interviews seek to draw attention to complex topic areas that are narrowly served by conventional science funding, research & medical approaches.

Click on the image below to go to the video to watch or listen on Spotify or Substack – PSGRNZ.

All interviews are fully referenced and high quality. Please share with patients, colleagues & friends.

Dr Bruce Lanphear. Professor of Health Sciences at Simon Fraser University and public health physician & paediatric epidemiologist: **Chemical Exposures & the Toxic Risks. Making Sense of Science, Public Health & Economic Benefit.**

'but when you really begin to find impacts or when you look at gene and environment interactions, the reason that's important is if you want to understand why conditions rise or decline, that's not going to be because of changes in our genes.'

Interview with **Professor Jack Heinemann**, Director of the Centre for Integrated Research in Biosafety (INBI); **Tessa Hiscox** and **Andrew McCabe**. Centre for Integrated Research in Biosafety (INBI), at New Zealand's University of Canterbury, & some of the co-

authors of INBI's Submission to the Parliament Health Committee on the Gene Technology Bill 2024.: **Proposed NZ Gene Tech Bill: Scientists say risk tiering framework is not risk proportionate 'scientific case is not made'.**

'*New Zealand would have the most extreme combination in the world of proposed species breadth (microorganisms, plants, animals) and process (e.g. SDN2) exemptions.*'

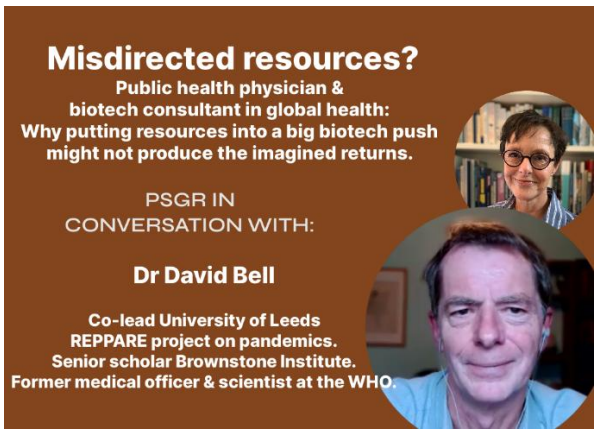
Professor Julia Rucklidge. Director of Te Puna Toiora, the Mental Health and Nutrition Research Lab at the University of Canterbury. **Multinutrients for pregnancy & depression. 1st ever RCT NUTRIMUM trial. Benefits for mum & babies.**

'using a measure that Highlights things like being really dysregulated or getting along with other people, being really anxious, just these sort of things that can start to identify people who struggle a bit more with life than others. So when we stratified the sample this way, what we then started to see was a big, much bigger split happening. And so those who got randomized to the micronutrients and who had a past history of medication and who had these personality difficulties, they were far way more likely to respond to the micronutrients than the placebo. So you end up with this splitting and the placebo not very much response, whereas we saw this really substantial and dramatic response with those who had these characteristics.'

Dr David Bell. Public health physician, co-lead University of Leeds REPPARE project, former medical officer and scientist at the WHO: **Public resources into a big biotech push? Ethically dubious imagined returns.**

WHO Funding: 'most of their money, along with all this private sector money, is now specified funding, which means that for 75% of the WHO budget, the WHO has to do exactly what the funder says. So they're a gun for hire or they're to use it.

And the countries that have been the biggest funders have been the countries with the very strong pharma sectors.'



Professor Ian Brighthope. **What advice would an integrative medicine trailblazer give recent graduates?**

'It depends on your genetics - diabetes or metabolic syndrome or heart disease, but they're all interrelated because the fundamentals are due to the biochemistry. If we mess up the biochemistry then we mess up the genes. Then the genes don't express themselves correctly.'

MOVING FORWARD – PSGR'S FOCUS

- Honour our **charitable objectives** and keep to our **core mission**: *Providing scientific & medical information & analysis in the service of the public's right to be independently informed on issues relating to human & environmental health.*

- Keep a sharp eye on technologies that are implicated in the aetiology of disease or that directly drive disease.

- Highlight the methods and processes used by prominent institutions to avoid conducting transparent, scientifically rigorous and robust risk assessments for the products and technologies they are tasked with regulating.

- Shed light on the importance of public trust in good process, and the critical role rigorous, robust and transparent processes should place in securing regulatory legitimacy (and the dependency of the courts on trustworthy processes).

- Necessarily draw attention to issues that are complex, uncertain and ambiguous. This is because when technology butts up against human biology, the extent of potential harm will predominantly be uncertain. For example, a baby or child may have different vulnerabilities based on their developmental age and stage. Have officials considered such issues, and taken into account the long-term impact of early-stage exposures?

- Highlight the importance of the precautionary principle – *'where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.'* This principle is not discussed in our government institutions, including where a precautionary approach is required by legislation. There are no policy documents supporting regulatory decision-making where there is risk of morally unacceptable harm. Morally unacceptable harm includes harm that is:

    - Threatening to human life or health; or
    - Serious and effectively irreversible; or
    - Inequitable to present or future generations; or
    - Imposed without adequate consideration of the human rights of those affected.

KEEP UP TO DATE WITH SUBSTACK

Our Substack is called **Science, Stewardship & Scalability**.

URL: PSGRNZ.Substack.com

Our interviews with doctors and scientists are published on YouTube and the audio version on Substack and Spotify. You can find us on Substack.com or on Spotify by simply searching 'PSGRNZ'.