

Dr. Martin Pall & Dr. Timothy Schoechle Delegation to Salt Spring Local Trust Committee, June 25, 2019

On June 25, 2019, two renowned experts will be presenting two delegations to you: the first on the biological effects of 5G and the second on the benefits of building a community-owned wired fiber optic network on Salt Spring.

The Issue

Communications technology is advancing at lightning speed. The telecom industry is promoting a race to deploy and install new 5th Generation wireless technology (5G) across the nation, coining it the fastest, most connected wireless innovation in history. In anticipation of 5G, telecoms are installing small cell transmitters right by our homes across BC, with no permitted public input or consent. Yet many questions about this technology remain unanswered. What is driving this race? Do we need 5G? What are the risks, and what are the alternatives?

The Connection Point to the LTC – Policy & Actions

The Islands Trust is currently considering a new Model Antenna Siting Protocol, one that does not consider the placement of 4G and 5G microcells in our communities, and one that does not contain the protective exposure standards found in the 2001 siting policy Salt Spring currently uses as a guide. For reasons of public health, data privacy, and environmental wellbeing, it is imperative that any new protocols that are adopted be as protective as current federal policy allows. Dr. Martin Pall will explain how human made electromagnetic radiation causes biological effects, and make policy recommendations for the Salt Spring Local Trust Committee to adopt.

The Strathcona Regional District's *Connected Coast* sub-sea fiber optic cable is slated to come to four Salt Spring ports over the next two years. The time is ripe to build a community-owned wired to the premises fiber optic network on Salt Spring. Dr. Schoechle will share what this "municipal broadband network" might look like and how it will benefit the citizens, services, environment, and businesses of Salt Spring.

The Risks

Wireless networks, including 5G, are extremely vulnerable to cyber attack and data breaches, which could significantly affect our health care system. In addition, wireless systems are NOT energy efficient –manufacturing wireless tech, and transmitting and storing data wirelessly has a huge global carbon footprint.

Ample peer-reviewed science links the non-natural electro-magnetic frequencies produced by wireless and cellular technologies to:

- increased cancer clusters near microwave transmitters
- reduced pollinator activity
- interference with bird migration
- plant and tree cellular stress leading to increased susceptibility to drought and thus forest fire risk
- DNA and cellular stress in all living things

Delegation One: Dr. Pall's Research:

Martin Pall, Ph.D., has identified and published research describing the likely molecular mechanisms of how human-made electromagnetic frequencies (EMFs) damage plants, animals and humans.

Pall has a bachelor's in physics from Johns Hopkins and a Ph.D. in biochemistry and genetics from Caltech, and is uniquely qualified for this type of research. For the past 18 years, he's been scouring the medical literature, integrating and drawing parallels between work done by others to answer the pressing question: by what mechanism do EMF's cause biological harm?

For the past 25 years, the industry has claimed that non-ionizing radiation is harmless and that the only radiation worth worrying about is ionizing radiation. Pall's research unequivocally proves that this assumption is false.

To summarize his research: the damage is not done through heat or ionizing radiation; it's done by activating your Voltage-Gated Calcium Channels, thereby triggering a chain-reaction that produces excessive amounts of hydroxyl free radicals — the most destructive free radicals known to humans, as well as through excessive calcium signaling.

Hydroxyl free radicals decimate mitochondrial and nuclear DNA, their membranes and proteins. Too much calcium in the mitochondria can also impact their function. The end result is mitochondrial dysfunction, which we now know is at the heart of most chronic disease.

This research tells us is that excessive microwave exposure can be a direct contributor to conditions such as Alzheimer's, anxiety, depression, autism, cardiac arrhythmias, and infertility.

In his June 25 delegation to the LTC, Dr Pall will explain why 5G requires so many antennas to be placed by our homes, how 5G technology works, and how it affects all living systems, **including increased risk of forest fire due to 5G effects on plant cell structure causing dehydration.**

Delegation Two: Dr. Schoechle's Research:

Dr. Timothy Schoechle is a globally recognized expert on how community-owned wired fiber optic networks provide the fastest, safest and most secure connectivity available.

Dr. Schoechle's analysis of the industry data shows that wireless systems cannot provide long-term solutions for universal, reliable and affordable Internet accessibility, nor support the ever-increasing data rates that will be needed in the near future for each home and business. Investment in wired, not wireless, information infrastructure is needed right now.

We are seeing the present emphasis on wireless technologies because the domination of the large telecom companies that control our access to the Internet and impose artificial scarcity, planned obsolescence, and high prices to maintain their immense profits. It is in their interest to obscure the fact that advanced copper and optical fiber are far superior to wireless in both cost and performance.

Government officials have been misled about the adequacy of wireless communications. Legislators should stop enabling the wireless industry's plans for massive new deployments of 4G LTE and soon 5G millimeter wave antennas throughout our neighbourhoods, and instead commit to supporting reliable, energy-efficient and enduring hard-wired telecommunications infrastructure that meets a community's immediate and long-term needs.

Locally controlled fiber networks would far better serve to sustain economic growth and competitiveness, meet projected market demand, overcome access inequality and second-rate connectivity issues, and diminish a range of well-known risks from wireless communication, including safety, security, privacy, **public health and environmental risks**, while at the same time reducing the extraordinary, and little considered, energy requirements of wireless and cellular networks.

In his June 25 delegation to the LTC, Dr. Schoechle will explain how by accessing federal and provincial connectivity funding, which is now available, and building our own fiber network, Salt Spring may sidestep the proprietary and wireless-intensive equipment used by industry-driven telecommunications infrastructure.

Bios



Martin L. Pall, PhD

Professor Emeritus of Biochemistry and Basic Medical Sciences in the School of Molecular Biosciences at Washington State University, Dr. Pall is an internationally recognized expert on the science behind 5G. His groundbreaking review articles show the mechanism by which human-generated electromagnetic frequencies cause biological and health

effects.



Timothy Schoechle, PhD

Author of *Re-Inventing Wires*, Dr. Schoechle is *the* global expert on wired fiber networks. He sits on the standards board of the Institute of Electrical and Electronics Engineers (IEEE), is a former faculty member of the University of Colorado, College of Engineering

and Applied Science, and is Senior Research Fellow, at the National Institute for Science, Law & Public Policy.