



PLANETARY HEALTH WEEKLY

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INTERVIEW WITH THE OUTGOING DIRECTOR GENERAL OF WORLD HEALTH ORGANIZATION

Margaret Chan, one of China's most senior figures in UN history, is retiring. For a decade she has served as director-general of the World Health Organization (WHO) and as such, has shaped the lives of seven billion people globally. Chen said "It's a tremendous pride to be able to work with very talented people within WHO, the organization, and the partners, but also the opportunity to visit countries big or small, rich or not so rich, and to learn about their challenges and their aspirations for a better life. I was very inspired." Chan also described the Ebola outbreak in West Africa as one of the most difficult moments for WHO. The organization was criticized for being slow in the beginning but with fast adjustments, it was able to offer assistance and eventually helped create the first-ever Ebola vaccine.

[Read More on UN Special](#)



ALSO IN THIS ISSUE:

- Drug Shops As Primary Point of Care in Nigeria
Snakebites Cost Sri Lanka More than \$10 Million
Noise is Annoying and Can Make You Infertile** 2

- Germany Hits 35% Renewable Power Share
Guangdong Handles Over 80% of African Smuggled
Ivory Into China
B.C.'s Oil and Gas Wells Leak Methane** 3

- Science Behind Arizona's Record Setting Heat Wave
Need For Investment in Pre-Primary Education
Ecuador's Indigenous Await Government Pardon for
Jailed Activists** 4

- Quote of the Week On Creativity and Events** 5

- FYI#1: Giant Iceberg Broke Off Antarctic Ice Shelf** 6

- FYI#2: Canadian Arctic Lab Being Mothballed** 7

- FYI#3: Fire Ant Queen Triggers Nationwide Alert in
Japan** 8

- FYI#4: The Safety of Inactivated Influenza Vaccine** 9

- FYI#5: Father of 176 Children in Uganda Seeks Help** 10

- FYI#6: Be Productive Without Getting Exhausted** 11

ICEBERG FREEZES CLIMATE RESEARCH PLANS

Canadian scientists have to think again as unusual Arctic warmth puts shipping at risk. They have abandoned their plans to explore the impact of climate change. Off the coast of Canada climate change has forced scientists into a drastic change of course as icebergs freeze climate research they had planned. Scientists have abandoned their plans to explore the impact of climate change on the Hudson Bay because global warming in the Arctic has brought iceberg hazard to shipping off the coasts of Newfoundland. So Canada's icebreaker Amundsen, a research ship with 22 laboratories and 65 scientific systems, has been switched from long-term understanding of climate change to short-term air and sea rescue duties. "Climate-related changes in Arctic sea ice not only reduce its extent and thickness but also increase its mobility, meaning that ice conditions are likely to become more variable and severe conditions such as these will occur more often," said David Barber, the expedition chief scientist, who also directs the Centre for Earth Observation Science at the University of Manitoba. Climate change is not something that is going to happen in the future, it is already here. Canada is ill prepared to deal with the realities.

[Read More on Climate News Network](#)



Backpage: Summer Green in Seguin, Ontario



Drug Shops As Primary Point of Care: The Case of Nigeria

Unlicensed medicine vendors, known as drug shops, are common practice in Nigeria, where primary health providers are scarce. In a country with an estimated 200,000 unofficial drug shops and just 2600 licensed pharmacies, where to buy medicines poses a daily dilemma. Although the drug shop owners are not required to be medically trained, pharmacists are. Many people prefer the drug shops because they are cheaper and more convenient. But there isn't accurate information about the medicine people are buying. Isiguzo is part of an interdisciplinary team of Nigerian and American researchers investigating the part played by drug shops, or patent and proprietary drug vendors. They are formally labelled by the Nigerian Government in delivering primary health care.

[Read More on the Lancet](#)

Snakebites Cost Sri Lanka More Than \$10 Million

Snakebites are a major public health problem in many rural communities around the world, often requiring medical care and affecting victims' ability to work. Every year, snakebites cost the Sri Lankan government more than \$10 million, and lead to economic loss of nearly \$4 million for individuals. In the new work, David Laloo, of the Liverpool School of Tropical Medicine, UK, and colleagues from the University of Kelaniya used data from a nation-wide household survey conducted in Sri Lanka in 2013 to estimate the number of snake bites and deaths from snake bites annually. To estimate the costs of the bites, they used additional household questionnaires and information gathered from hospital cost accounting systems. 79% of victims, the study found, suffered economic loss after a snake bite, with a median out of pocket cost of \$11.82 and a median loss of income of \$28.57 for those employed and \$33.21 for those self-employed. The total annual economic burden on households was \$3.8 USD. In addition, each year, the bites cost the national healthcare system \$10.3 million, which is 0.7% of the country's total healthcare costs, and lead to more than 11,000 years' worth of disability time, the researchers calculated. The numbers were comparable to Sri Lanka's annual spending on meningitis and dengue.

[Read More on Science Daily](#)



Noise Is Annoying, But Can It Also Make you Infertile?

Noise pollution is, warns the World Health Organization, a growing hazard, second only to air pollution in its ill effects. Noise has also been associated with increases in premature births and miscarriages, as well as reducing male fertility. A study, in the international journal *Environmental Pollution*, of 206,492 men in South Korea found that being exposed to noise levels of more than 55 decibels for four years, especially at night, was associated with an increase in fertility problems. When the authors of the study compared postcodes and the noise associated with them to fertility (as measured by the quality of semen samples) they found an increase in infertility for each 10 decibels of noise above 55 decibels. The research reinforces previous studies showing that listening to constant noise, even at a low level, can activate the body's stress response, disrupting the normal control of sex hormones. Cortisol, released when you are irritated by constant noise, produces hormones which work in a feedback loop to lower levels of testosterone. This can reduce both the number of sperm and their mobility. Another study of men working in noisy conditions (119 decibels, which is louder than a police siren) also found lower testosterone levels and fewer, less mobile sperm.

[Read More on The Guardian](#)



Germany Hits 35 Percent Renewable Power Share During First Half of 2017

According to the German Renewable Energy Federation (BEE), Germany has hit a new renewables record during the first half of the year with the country generating more than a third of its power from renewable sources. The results represent a boost to Germany's Climate Action Plan 2050, which was finalised last year and sets a technical target phase out nuclear power as soon as 2022 and generate 80 per cent of its energy from renewables by 2050. But while the increase in renewable electricity generation is positive, according to BEE, the progress was offset by a decline in the proportion of renewables used in the transport sector from 5.5 per cent in the first half of 2016 to 5.1 per cent over the past six months. And on heating, the data also shows Germany generated just 13.6 per cent of its heat from renewables over the course of 2017 so far, which is only a slight uptick on the 13.3 per cent proportion of renewable heat produced in the first half of 2016. In total, the proportion of renewables used across all three sectors during the first half of 2017 rose only slightly year-on-year to 15.2 per cent from 14.8 per cent. In total, the proportion of renewables used across all three sectors during the first half of 2017 rose only slightly year-on-year to 15.2 per cent from 14.8 per cent.

[Read More on Business Green](#)

One Third of B.C.'s Oil and Gas Wells Leaking Significant Levels of Methane

About 35 per cent of British Columbia's 11,000 active oil wells, abandoned wells and water injection wells in the northeastern part of the province are leaking significant amounts of methane. Researchers with the David Suzuki Foundation measured leaks from abandoned, suspended, shut-in and active oil wells in the Montney shale gas play near Fort St. John. According to John Werring, senior science and policy advisor to the foundation, the study found that the average rate of flow of methane gas from surface casing vents from oil wells was conservatively estimated to be between nine and 11 cubic metres per day. "Methane leaks from abandoned wells are a huge problem and issue in this province," said Werring. "As Alberta goes, so too does B.C." Both provinces have similar legislation that gives industry an indefinite time period to clean up inactive wells. Neither province has required industry to set aside even a fraction of the funds necessary to cover the cost of fixing these environmental liabilities.

[Read More on The Tyee](#)



One Town in Guangdong Handles Over 80% of the African Ivory Smuggled Into China

That China plays a key role in ivory smuggling is well established. Less known is that, within China, a single town dominates the trade. That town, according to London-based watchdog group Environmental Investigation Agency, is called Shuidong. A city of about 90,000 inhabitants, Shuidong is noted for sea cucumbers and sits on the southern coast of China in Guangdong province. According to a new report from the EIA, over 80% of the poached elephant tusks making their way from Africa to China pass through Shuidong. That makes Shuidong the world's biggest hub for wholesale ivory trading. For the Shuidong syndicates, their role in smuggling ivory tusks across international boundaries and into China is a lucrative speciality, with a consignment of three tonnes netting a profit of RMB20 million (\$3 million) during the peak years of the trade. China will ban the ivory trade by year's end, it says. For now, the smugglers in Shuidong are still very much active.

[Read More on Quartz](#)



The Science Behind Arizona's Record Setting Heat Wave

In the Arizona desert, as far back as weather records go, it's never been this hot for this long. In Phoenix, just to the north, temperatures were even hotter. Meteorologists there were expecting temperatures to run as high as 120 degrees. The National Weather Service is calling the heat wave "extreme even by desert standards." In Sacramento, California, a team of meteorologists successfully baked cookies and fried bacon inside a car, with temperatures inside the car reaching nearly 200 degrees. The United States Border Patrol stepped up safety messages, saying "it is physically impossible for the average person to carry enough water to survive." The National Weather Service also warned against walking pets outdoors, saying that at pavement temperatures above 162 degrees (consistent with air temperatures of 102), skin is instantly destroyed. American Airlines canceled 38 flights previously scheduled for Phoenix, simply because it will be too hot to fly.

[Read More on Pacific Standard](#)

SPOTLIGHT ON POLICY: THE URGENT NEED FOR INVESTMENT IN PRE-PRIMARY EDUCATION

New research, carried out by the University of Cambridge's Research for Equitable Access and Learning (REAL) Centre on behalf of the charity, Theirworld, and launched in the report *Bright and Early: How financing pre-primary education gives every child a fair start in life*, highlights the invisible crisis facing pre-primary education. The research shows that 85% of children in low income countries still do not have access to pre-primary. This lack of equitable access to pre-primary education means more than 200 million children under the age of five in developing countries are estimated to be at risk of failing to reach their full potential. Despite these well-known benefits, new analysis in the 'Bright and Early' report shows that pre-primary education is massively underfunded. Governments in low-income countries spend only \$8 a year per child on pre-primary education, a mere 2.5 cents a day. Current spending on pre-primary education by governments and donors combined represents just 11% of resources needed each year between now and 2030 by low income countries to meet the pre-primary education target of universal access.

[Read More on World Education Blog](#)



SPOTLIGHT ON INDIGENOUS HEALTH:

Ecuador's Indigenous Await Government Pardon for Jailed Activists

Advocates for indigenous people in Ecuador have appealed to the government to pardon and release more than 177 activists and leaders who were arrested last month for participating in protests. Indigenous peoples face the highest levels of poverty in Ecuador, with little access to health care, justice or education. In Latin America overall, the World Bank says poverty rates among indigenous populations are higher and are decreasing more slowly than in the population as a whole, while human development indicators (education, health, and access to water and sanitation) are still lagging far behind. The organization, called the Confederation of Indigenous Nationalities of Ecuador (Conaie), has given the government a month to respond to its request to not prosecute activists at a special assembly in the Amazonian city of Puyo. The indigenous group submitted a 8,800-signature petition at the end of last month to request amnesty for 177 activists and pardons for another 20.

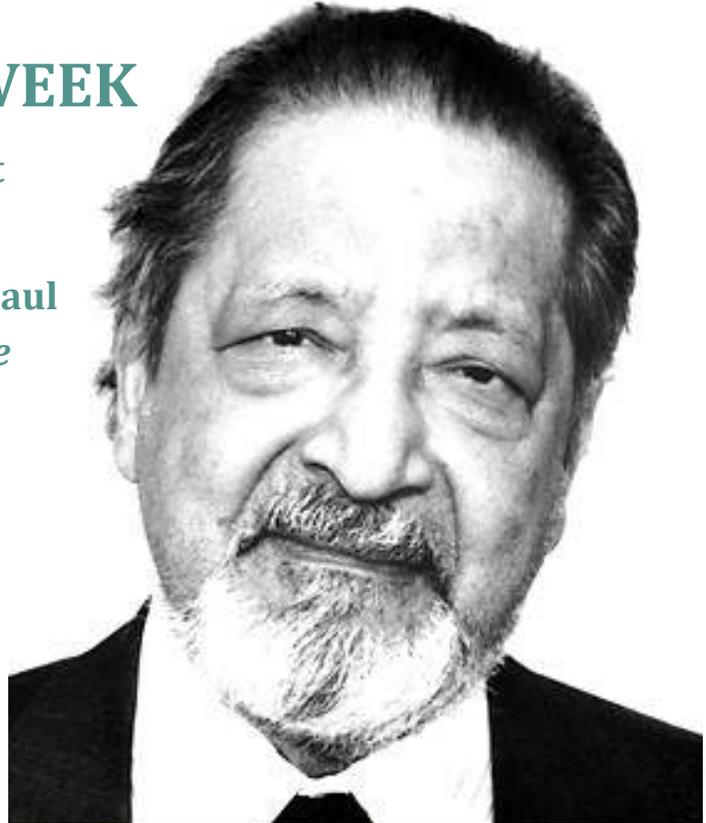
[Read More on Humansphere](#)



QUOTE OF THE WEEK

“History is built around achievement and creation.”

Trinidadian Nobel Laureate V.S. Naipaul in his travel book *The Middle Passage* (1962).



EVENTSTABLE

DATE	CONFERENCE	LOCATION	REGISTER
July-Sept	Aboriginal Conferences	Canada	http://aboriginalconferences.ca/
July 25-27	Pedagogy For The Anthropocene: Re-Rooting Academic Knowledge in Nature	Toronto Canada	http://docs.google.com/forms/d/e/1FAIpQLSofqDbn3qR-F5XpU09k_mhfkPp6SOj3w4-vQsouYH1oVuYnQ/viewform?c=0&w=1
Sept 25-27	Canadian Association of Community Health Centres 2017 Conference	Calgary Canada	https://www.cachc.ca/2017conference/?utm_source=CACHC+e-News&utm_campaign=95ef99308c-EMAIL_CAMPAIGN_2017_06_20&utm_medium=email&utm_term=0_78768ad041-95ef99308c-306041945
Sept 29	Governance of Pharmaceuticals Policy Workshop	Toronto Canada	http://www.pharmacy.utoronto.ca/whocc
Oct 29-31	Canadian Conference for Global Health	Montreal Canada	http://www.ccgh-csih.ca/ccgh2015/index



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20% BIGGER THAN PRINCE EDWARD ISLAND JUST BROKE OFF A MAJOR ANTARCTIC ICE SHELF



A chunk of floating ice that weighs more than a trillion metric tons broke away from the Antarctic Peninsula, producing one of the largest icebergs ever recorded and providing a glimpse of how the Antarctic ice sheet might ultimately start to fall apart. There is no scientific consensus over whether global warming is to blame. But the landscape of the Antarctic Peninsula has been fundamentally changed, according to Project Midas, a research team from Swansea University and Aberystwyth University in Britain that had been monitoring the rift since 2014. “The remaining shelf will be at its smallest ever known size,” said Adrian Luckman, a lead researcher for Project Midas. “This is a big change. Maps will need to be redrawn.”

Larsen C, like two smaller ice shelves that collapsed before it, was holding back relatively little land ice, and it is not expected to contribute much to the rise of the sea. But in other parts of Antarctica, similar shelves are holding back enormous amounts of ice, and scientists fear that their future collapse could dump enough ice into the ocean to raise the sea level by many feet. How fast this could happen is unclear.

Some climate scientists believe the warming in the region was at least in part a consequence of human-caused climate change, while others have disputed that, seeing a large role for natural variability, and noting that icebergs have been breaking away from ice shelves for many millions of years. But the two camps agree that the breakup of ice shelves in the peninsula region may be a preview of what is in store for the main part of Antarctica as the world continues heating up as a result of human activity.

[Read More on The New York Times](#)



CANADIAN ARCTIC RESEARCH LAB IS TO BE MOTHBALLED AS FEDERAL GRANT EXPIRES



The Nova Scotia-based physicist who runs a research station almost as far north in Canada as you can get says he is preparing to mothball the facility as the expiration date for a major source of federal funding draws near. Dalhousie University's James Drummond is the principal investigator at the Polar Environment Atmospheric Research Laboratory (PEARL) on Ellesmere Island, Nunavut, approximately 1,100 kilometres from the North Pole.

The facility is one of only a handful of research labs in the High Arctic. "It is rather like being on another planet, without having to go through the space travel bit," Drummond said. The laboratory, which has been operating continuously since 2005, cannot continue to function without a \$1-million annual grant from the Climate Change and Atmospheric Research (CCAR) program, Drummond said. Of the seven projects that received CCAR money, six will stop being funded in March 2018 and funding for the seventh will expire in March 2019. Drummond said he will "begin the process of mothballing the facility" in the next few months. That means not renewing staff contracts and formulating a plan to preserve the lab "so that if at any point in the future we wanted to resume the research, we could do so," he said.

Drummond said he wants the federal government to renew the CCAR program in the short-term, and ultimately commit to providing climate initiatives like his with regular funding so that researchers can think long-term. "In the Arctic you have to plan ahead. A long way ahead," he said.

[Read More on CBC News](#)



FIRE ANT QUEEN FOUND IN OSAKA, TRIGGERING NATIONWIDE HARBOR ALERT



The latest in a rash of stinging fire ant discoveries in Japan has come from the Port of Osaka, where remains appearing to be a queen and a potential nest were found, prompting warnings and countermeasures at ports across Japan as authorities fear widespread infestations. Red imported fire ants, or RIFAs, bite with venom that leaves a burning sting, and in some cases can induce shock and kill their victims. They can wipe out local ant populations and take over their nests. Japan's Environment Ministry has marked them as an invasive species since 2005. They have cropped up in or near a number of Japanese ports this and last month. The ministry called an emergency inspection at the Osaka port Friday after tropical fire ants, a related species with similar venom, were discovered there. Around 100 of the insects were collected. After pesticides were sprayed, further inspections turned up the remains of about 50 more ants, including winged ones from cracks in asphalt.

The ministry said it had determined that the ants were RIFAs, and one appeared to be a queen, which had probably been making a nest. As winged ants can fly distances of more than 10km with a favorable wind, the ministry will comb the harbor's surroundings to make sure there are no nests. Another 15 ports, including those of Hiroshima and Kagoshima, were added to the seven already undergoing emergency inspections. Personnel have been checking for fire ants at ports handling large volumes of imported goods, such as those of Tokyo and Yokohama. The Ministry of Land, Infrastructure, Transport and Tourism has asked the municipalities governing all of the country's 933 ports to alert it immediately if they find an RIFA infestation. Believing the ants may have been mixed in with cargo coming from habitats in China and elsewhere, the ministry also called for 63 ports that regularly run shipments with China, including Tokyo and Yokohama, to administer pesticides in and around their container yards.

Could the ants have already dug in in Japan? "It's hard to evaluate at present, but it's possible for them to hide away and then multiply explosively even a decade later," said Kouichi Goka, head of ecological risk assessment and control at the National Institute for Environmental Studies' Center for Environmental Biology and Ecosystem Studies. Green spaces and parks close to ports will need to be watched carefully, Goka said.

[Read More on Nikkei Asian Review](#)



THE SAFETY, IMMUNOGENICITY, AND ACCEPTABILITY OF INACTIVATED INFLUENZA VACCINE DELIVERED BY MICRONEEDLE PATCH



Researchers looking to boost vaccination rates have drummed up a fascinating new way to deliver the flu shot. Only about 40 percent of adults each year get the flu shot, which is given through an injection into the muscle. Now, researchers have developed a patch made up a bunch of tiny needles that shoot the vaccine right into the skin. A phased 1 trial showed it was safe and produced a similar antibody response to a standard flu shot in a small group of patients.

The idea of a micro-needle patch is an exciting approach for a handful of reasons. It could potentially use a smaller dose than a typical injection into the muscle and would be easier to self-administer, safer to throw away, and could be shipped and stored without refrigeration. That could be a huge help in getting more people vaccinated at a lower cost. The researches are now running a larger study and working to develop similar patches for measles, rubella and polio.

[Read More on the Lancet](#)

[See Also: Not Your Grandma's Pills: 7 Intriguing New Ways to Deliver Drugs](#)



FATHER OF 176 CHILDREN IN UGANDA SEEKS GOVERNMENT SUPPORT



A 65-year-old man, Mustafa Magambo Mutone, wants the Government to support some of his 176 children. "I have tried to feed my 13 wives and over 170 children and it is not easy. I request the Government to at least sponsor 30 of my children in secondary schools and tertiary institutions," Mutone, a businessman and a resident of Kyaterekera trading centre in Kagadi district, said.

He added that he has over 40 children in primary school and has plans to establish his own nursery and primary school in Kyaterekera subcounty. He says he has about 10 children in the universities (Makerere, Mbarara and Kyambogo), most of them on private sponsorship. Mutone has five pairs of twins among his children. His children will hit the 180 mark by the end of the year because six of his wives are pregnant. He explained that he is still strong enough to marry more wives and bear more children, since he does not drink alcohol, smoke or take sugar. Mutone, who deals in produce (beans, maize and coffee), also owns a wholesale shop at Kyaterekera trading centre. Mutone said some of his wives are working as midwives at Mulago Hospital and Mbarara Hospital and in Rwanda.

"Two of my wives who gave birth to twins are in Kampala and Isingiro, working as midwives, while another two, Haniffer Kabasomi and Jane Tuhaise, work as nurses. My youngest wife is 25, and the eldest is 50, but I had about 10 girlfriends before I married officially and they all delivered the same year," Mutone said. He added that his first born child is 49 years old, while the youngest are four-year-old twins. He further noted that he has over 90 grandchildren. The grey-haired Mutone, said he has a special book where he records every child born whether within the country or outside, because he has some wives in the Democratic Republic of Congo, Rwanda and Burundi.

"We were groomed by our father to be responsible, have good morals and work hard. The only challenge is the big number of dependants of other wives who have children aged between four and 13 years," Kyaise said. Muhamad Byarufu, 45, also a son of Mutone, said he owns a business and helps pay school fees of some of his younger brothers. "We have a programme of starting up a school with our father, since some of my brothers are teachers. We will not find a problem hiring teachers and having pupils to teach. Some of my young brothers are in primary elsewhere and some children of our stepmothers are of school-going age. They can fill the classes," he said. Moses Basalirwa, one of the family planning experts at Kagadi Hospital, said producing many children is not good, since it is accompanied by health challenges and costs that one has to incur in meeting their basic needs and educating them.

[Read More on New Vision](#)



BE EXTREMELY PRODUCTIVE WITHOUT GETTING EXTREMELY EXHAUSTED



In an interview with Science of Us, Stulberg and Magness talked about dialing in the right amount of stress and rest, tapping into a bigger sense of purpose, and why taking a hike with friends is just about the best thing you can do for yourself.

The biggest part of your book is devoted to exploring this equation — stress + rest = growth — taken from athletics, that you then apply to other areas of life. Can you just briefly explain what this equation expresses?

Magness: Most people think to get better at anything, whether that's athletics or intellectual learning or whatever, you just need to work really hard. And what that equation demonstrates is the need for balance. Not only do I have to do really hard, deliberate work, but I don't get growth or adaptation or learning unless I have the other part of it, which is rest, recovery, stepping back and allowing that work to absorb so that I can improve on whatever it is I'm doing.

So let's take the first part of the equation: stress. Where do people go wrong when they think about stress and how to relate to it?

Stulberg: We use stress in a biological sense, as a stimulus that's being applied to the body or brain. So the next question becomes, how much of a stimulus is healthy? The very simple analogy is lifting weights: If you pick way too heavy a weight and you try to lift it, you're going to hurt yourself. The same goes for any kind of challenge. If you take on something that you're in so far over your head that you're feeling anxious about it, that's probably not a good growth-promoting kind of stress. The flip side is, if you're just constantly going through the motions, in the weight room it would be like lifting a two-pound weight, that's not going to elicit any kind of growth either.

The second element of the equation is rest, something that people also seem to misunderstand. Sleeping a lot is seen as lazy, and President Trump boasts that he only needs four hours a night. What do people, maybe including the president, get wrong about rest?

Magness: We have this myth of hard work, that if you work really hard, that's what's going to take you to the top. If I go into a weight room and I lift or I go and do a really hard workout on the track, during that workout my body is breaking down. I'm getting worse. The body doesn't adapt and grow and make the muscles grow stronger and bigger until we step away and give it time to repair and adapt.

If you look at sleep, for example, that's the time when we get all these growth hormones that start that repair process going. You're getting better the longer you sleep. The same thing happens with learning and even emotional development. What researchers have found is that when we sleep we process basically everything we learned. We clear out the stuff that doesn't really matter, that we don't need that much. And these memories, these learnings, we really deeply ingrain these. I think we have to reconceptualise sleep as part of the work.

[Read More on Science of Us](#)

Summer Green
Whitefish Lake, Seguin Township
Parry Sound, Ontario
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