# 23 November, 2020, newsletter theme: No vaccine? No vino. Suggested public health policy: people who refuse the vaccine will not be allowed to enter pubs or bars.

You know, I couldn't for the life of me unite the content of this whacky 36<sup>th</sup> issue of the newsletter into any sensible theme. Really, I did try. But this newsletter will be super fun fun, promise!

Dear Grey House team members and valliant quaran-teammates, It's now 269 days into our incessant team-building exercise. Hang in there everyone, holidays are on the way!

Now for some super fun fun news: Duelling dinos to retire to North Carolina! Many retirees move here, but so far none 66 million years old.



The skeletons of two dinosaurs locked together in combat have been <u>sold</u> to the North Carolina Museum of Natural Sciences after spending more than a decade hidden away. Discovered by a brimmed-hatted amateur dinosaur hunter in 2006, the fossils are a paleontologist's dream: a T. rex and a Triceratops preserved for 66 million years in what seems to be their final tussle. But subsequent legal battles over who owned the fossils kept them out of public view (fewer than 100 people have seen them), until, in June, a US appeals court <u>ruled</u> that the fossils belonged to the owners of the land's surface rights, giving a Montana ranch-owning family the right to flog them. Now, thanks to a cool <u>\$6 million</u> paid by private donors, the bones are heading for display right next door to us, in Raleigh.

# More fun! Dolly Parton is back!

#### An amazing acknowledgements section, *NEJM*, sent by Leah:

Safety and Immunogenicity of SARS-CoV-2 mRNA-1273 Vaccine in Older Adults. Supported by grants (UM1AI148373, to Kaiser Washington; UM1AI148576, UM1AI148684, and NIH P51 OD011132, to Emory University; NIH AID AI149644, to the University of North Carolina; UM1AI148684-01S1, to Vanderbilt University Medical Center; and HSN272201500002C, to Emmes) from the National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH); by a grant (UL1 TR002243, to Vanderbilt University Medical Center) from the National Center for Advancing Translational Sciences, NIH; and by the Dolly Parton Covid-19 Research Fund (to Vanderbilt University Medical Center).





## **HAPPY NEWS FIRST:**

Richie is on the mend! Hurrah! At Whangamata beach. Submitted by Sandhya.



**Further happy news from New Zealand!** New Zealand space launch provider <u>Rocket Lab</u> took a step toward making its launch vehicles reusable today with the safe splashdown and recovery of an Electron booster after it successfully took its payload to orbit. The payload was a garden gnome.



# Terrific new blog on our work questioning the reliability of fMRI task measures: https://medium.com/@irisproff/can-brain-scans-transform-psychiatry-963ff2e5fb4f



Submitted by Ahmad.

Aaron and Max's JAMA paper on midlife brain sequalae of childhood lead exposure came out this week. Lots of wonderful media coverage, starting with DukeToday; <a href="https://today.duke.edu/2020/11/childhood-lead-exposure-leads-structural-changes-middle-aged-brains">https://today.duke.edu/2020/11/childhood-lead-exposure-leads-structural-changes-middle-aged-brains</a>

https://today.duke.edu/2020/11/childhood-lead-exposure-leads-structural-changes-middle-aged-brains

Aaron did a long interview with BBC World News, interesting because its biggest audiences are in Asia and Africa, where COVID is not dominating the news space, and where lead is still unregulated, producing lead levels in children similar to those of the Dunedin cohort in the 1980's.

Altmetric is up to 175: <a href="https://jamanetwork.altmetric.com/details/94477354">https://jamanetwork.altmetric.com/details/94477354</a>



# The celebrated Clarivate Web-of-Science Highly-cited Researcher list came out this week:

On the list this year I found Richie, Avshalom, Renate, Helen, Andrea, Louise, Temi, and Daniel. If I missed you, let me know!



37 Duke researchers are on the list, as covered at the link below. You may recognize psychiatric epidemiologist Jane Costello and autism researcher Geraldine Dawson in this pic from the DukeToday online newspaper. Submitted by Honalee.

https://researchblog.duke.edu/2020/11/18/most-highly-cited-list-includes-37-from-duke/?utm\_source=newsletter&utm\_medium=email&utm\_content=Most%20highly%20cited&utm\_campaign=dukedailyNov18 20

### Avshalom spoke in Spain this week!





### **NEXT, THE UNHAPPY NEWS:**

Radiation for Temi will be daily in December. It doesn't hurt or anything, it just takes time each week day. We will stay in our house near Duke campus for the month of treatments, returning to the farm on weekends. Heartfelt thanks to all of you who are supporting me and Avshalom this month. Sorry for the slow pace of work.

Alice Gregory insanely shipped a picnic in a hamper from Fortnum and Mason. I've



always wanted one! After being founded in 1707 - selling provisions essentially pilfered from the Royal household by footman William Fortnum, the upmarket department store has since supplied provisions to some of the most ambitious and highly regarded expeditions in history. Fortnum & Mason hampers were present when Stanley met Livingstone near Lake Tanganyika.

Unhappy news about spring semester from  $\overline{Duke}$ 

University staff should continue to work remotely through the spring semester unless you are specifically designated to return to Duke facilities. Having fewer people on-site continues to be the best way to reduce the potential spread of this virus and protect our campus and community. While there is very optimistic news about vaccines, we also know they will not be widely available to faculty, staff and students until late spring or early summer 2021.

#### THIS WEEK's Science visualizations:

Look at the gorgeous job **Antony Ambler** has done with posting the publications from E-risk:

http://eriskstudy.com/publications/

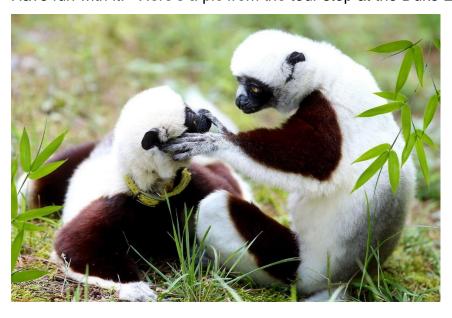
That is so great looking Antony! Must have taken hours, and hours.

#### New virtual tour for a "visit" to Duke. Submitted by Honalee.

Explore this <u>custom Google Map</u> with embedded stops of places on the Duke campus. You might particularly enjoy:

- getting behind the wheel of the race car built by Duke students
- the puppy kindergarten in the Biosciences Building
- seeing the surgical training center and the high-tech approaches for training doctors
- the Student Wellness Center for the Oasis and the Egg Chairs (I'll race you to them as soon as campus open up again)
- for the serious science-minded, I recommend the underground nuclear lab and physics demo

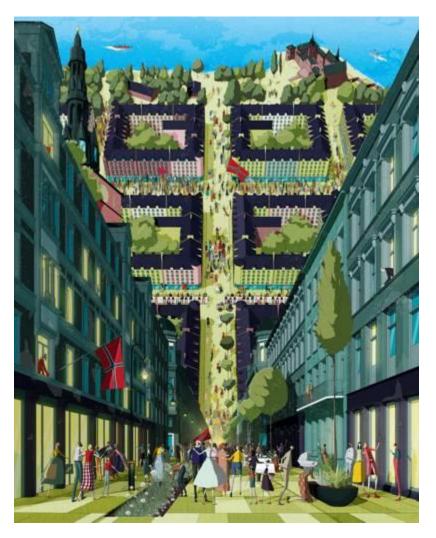
Have fun with it! Here's a pic from the tour stop at the Duke Lemur Research Center.



# Our Norwegian team members are safe on their bikes!

In 2019, Oslo, Norway recorded zero pedestrian or cyclist deaths. There was only a single traffic fatality, which involved someone driving into a fence.

(London had 79 fatalities in 2019; New York city had 218, Durham NC had 25)



**How'd they do it?** Rune Gjøs, a director at Oslo's Department of Mobility, says "The wish to pedestrianise Oslo isn't a new policy, but it has accelerated now," "The car had become the owner of our cities, but we're resetting the order again, as part of Vision-zero."

#### For Vision-zero in Durham, NC:

https://durhamnc.gov/DocumentCenter/View/16268/Durham-Vision-Zero-Brochure-

# Team members have asked me to post the link to download virtual zoom backgrounds again: SPACE! DINOSAURS! ANIMALS!

Virtual Zoom backgrounds to download from the Smithsonian science museum.

https://www.nationalgeographic.com/family/virtual-backgrounds-for-

school/?cmpid=org=ngp::mc=crm-

 $email::src=ngp::cmp=dino2020::add=Dino\_SpecialEdition\_20200928\&rid=2EFA51833F1079B665C68673B27F0EEA$ 

More virtual zoom backgrounds, from famous paintings in the US National Gallery.

https://www.si.edu/spotlight/backgrounds





## In the Midst of a Pandemic, Where are the Patients?

Eight months into the pandemic we must confront a bit of a paradox: While standardized surveys have shown an increase in the incidence of mental symptoms or disorders, including anxiety, depression, and suicidal ideation, we have not seen a corresponding increase in mental health visits, nor, quite fortunately, have we observed a corresponding increase in suicide.

A search of PubMed found a total of 269 publications on suicide and the COVID-19 pandemic in 2020, with first references appearing in April 2020 and continuing at a relatively steady pace thereafter, 37 per month until October. Presuming a link between unemployment and suicide, <u>Lancet Psychiatry in May 2020</u> predicted a global rise in suicide of between 2,000 and 8,000 annually against a backdrop of approximately 800,000 suicides.

At this point, however, the only survey extant that reports on deaths due to suicide during the pandemic is <u>a Norwegian study</u>, which found no elevation in overall deaths due to suicide.

In the USA, there are no numbers suggesting that visits to mental health providers have increased. Surveys suggest a drop off in treatment delivery in the first 3 pandemic months that has not increased to pre-pandemic levels. Psychologists and psychiatrists have seen some offset in the decrease of office-based visits as telehealth utilization has increased.

The National Health Service in Great Britain predicted a 25% increase in demand for psychological services in the coming years. Accordingly, they have increased funding to provide for an additional 25% of training slots in psychology. In the US mental health training is not centrally organized, and many training programs are not admitting new students this year.

I think the major takeaway is that it is reasonable to be concerned, but at the same time alarmism is unwarranted. Simultaneously, however, there are certain populations differentially affected by the virus for whom suicide may be a larger concern.

In October, the National Suicide Hotline Designation Act was signed into law. This act creates a three-digit phone number, similar to 911, that will link callers to the National Suicide Prevention Lifeline. The number will be 988, but please note that this number is not scheduled to be operating until July 2022. In the meantime, those with suicidal ideation should call the existing number, 1-800-273-TALK (8255).

## **RESEARCH-PROJECT PROGRESS SINCE 16 Nov:**

When rejected, <u>always</u> revise and resubmit. Douglas Stuart just won the Booker Prize for *Shuggie Bain*, which was rejected by 32 publishing houses. Laying bare the ruthlessness of poverty and the limits of love, *Shuggie Bain* is a blistering and heartbreaking debut, and an exploration of the unsinkable love that only children can have for their damaged parents. <a href="https://thebookerprizes.com/books/shuggie-bain-by-douglas-stuart">https://thebookerprizes.com/books/shuggie-bain-by-douglas-stuart</a>

#### Now, a double home run!

**Leah Richmond-Rakerd got an acceptance from** *JAMA Network Open*! Richmond-Rakerd, L.S., D'Souza, S., Milne, B.J., Caspi, A., & Moffitt, T.E. (in press). Longitudinal associations of mental disorders with physical diseases and mortality among 2.3 million New Zealanders. *JAMA Network Open.* **Pop the corks!!!!!!!!** 

Try this perfect song for Leah's paper, "Self-control" by the New Zealand band, The Dukes: <a href="https://www.google.com/search?q=dukes%20self%20control">https://www.google.com/search?q=dukes%20self%20control</a>

**Kyle Bourassa submitted 2 big grant proposals this week,** one to AHA and another as a KL2. Childhood Adversity and Cardiovascular Health: Translating Psychosocial Mechanisms into Intervention Targets. **Fingers crossed! You must be exhausted.** 

Helen Fisher put together an application to ESRC for E-Risk phase 27. Go Helen!

**Kyle Bourassa received a conditional acceptance** from *Psychosomatic Medicine* on his fab COVID paper, which is titled, "State-level Stay-at-home Orders and Objectively Measured Movement in the United States During the COVID-19 Pandemic." <a href="https://psyarxiv.com/hyd57">https://psyarxiv.com/hyd57</a> **Superb!!!** 

Three new essays are published together as a set this month in issue 63 of *Aging Research Reviews*, by Terrie Moffitt, Eileen Crimmins, and Elissa Epel. They highlight the value of behavioral and social research for geroscience. Check them out on the "What's New" page on www.moffittcaspi.com

**Kyle Bourassa is being interviewed for a short video** on his social distancing and health behaviors paper for the American Psychosomatic Society Virtual Meeting.

**Kyle will be moderating a panel session on Biomarkers of Biological Aging** at the American Psychosomatic Society Meeting, which includes Dan Belsky as a presenter.

Jasmin Wertz is tidying up her R&R on a provisional acceptance on the first submission from *JAMA-Psychiatry* for: Psychiatric illness as a risk factor for accelerated aging: Evidence from a population-representative longitudinal cohort study. Good luck Jasmin!

**Line Rasmussen submitted an abstract to APPA:** Social isolation, loneliness, and stressful life events are associated with elevated chronic inflammation.

Jasmin Wertz is working on an R&R at Social Science and Medicine. The vital personality and healthy aging: Replicated life-course evidence about measurement, correlates, and familial transmission.

Max Elliott is submitting his R&R today at *Nature Aging*. "Disparities in the pace of biological aging among midlife adults of the same chronological age: Implications for early frailty risk and policy." Fingers crossed for this wildly responsive revision!

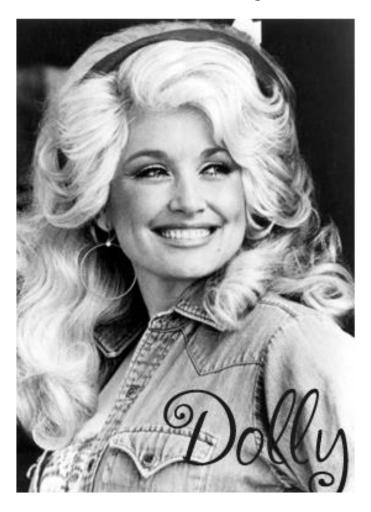
Maria Gehred is finishing up her R&R from *Biological Psychiatry* for her paper: Long-term neural embedding of adverse childhood experiences in a population-representative birth cohort followed for five decades.

**Out for mock review:** Roy Lay-Yee, Tim Matthews, T Moffitt, Richie Poulton, Avshalom Caspi, **Barry Milne**. Do socially isolated children become socially isolated adults?

**Aaron Reuben & Helen Fisher,** Association of childhood air pollution exposure with the emergence of psychopathology at the transition to adulthood. **Finishing mock review.** 

**Jorim Tielbeek and JC Barnes**, polygenic score for antisocial behaviour, Dunedin and E-risk, **going out for mock review soon**.

Temi took up her 3-year appointment as chair of the National Academy of Science's Board on Behavioral, Cognitive and Sensory Sciences.



I'm not offended by all the dumb blonde jokes because I know I'm not dumb...and I also know that I'm not blonde.

## Projects underway and making good progress toward mock review:

Kyle Bourassa and Line Rasmussen, stressful life events and suPAR

Max Elliott & Line Rasmussen, brain and suPAR

Line Rasmussen, little p and suPAR

Jasmin Wertz, parenting genomics in multiple cohorts

Annchen Knodt, long-term cannabis use and midlife brain structure

Madeline Meier; cannabis and brain/cognition

Karen Sugden, education and aging in multiple cohorts

Avshalom and Renate, The p-factor, an empirical evaluation

Jess Agnew-Blase, mother-child polygenic ADHD scores and family chaos

Daniel Belsky, Karen, David, Temi, and Avshalom, DunedinPoAm4x

Aaron Reuben, childhood lead and telomere erosion

Aaron Reuben, prospective risk factors for ADRD

Leah Richmond-Rakerd, Stephanie D'Souza, Barry Milne, mental health and ADRD in the NZ IDI

Max Elliott, DunedinPoAm4x and dementia in ADNI

Signe Hald Andersen and Leah Richmond-Rakerd, 3-generations of the concentration of disadvantage and how education breaks the cycle

Geli Ronald and Lizzie, Autism Q10 and little p



Iona's new hat:

submitted by Jasmin

#### From NATURE:

Rules for evidence communication: Quick tips for sharing evidence from your research <a href="https://www.nature.com/articles/d41586-020-03189-">https://www.nature.com/articles/d41586-020-03189-</a>

1?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+nature%2Frss%2Fcurrent+% 28Nature+-+Issue%29

The aim is to 'inform but not persuade',

- Address all the questions and concerns of the target audience.
- Anticipate misunderstandings; pre-emptively debunk or explain them.
- Don't cherry-pick findings.
- Present potential benefits and possible harms in the same way so that they can be compared fairly.
- Avoid the biases inherent in any presentation format (for example, use both 'positive' and 'negative' framing together).
- Use numbers alone, or both words and numbers.
- Demonstrate 'unapologetic uncertainty': be open about a range of possible outcomes.
- When you don't know, say so; say what you are going to do to find out, and by when.
- Highlight the quality and relevance of the underlying evidence (for example, describe the data set).
- Use a carefully designed layout in a clear order, and include sources.



Kamouraska front porch, submitted by Michel Boivin





Homework everyone: search out some nutty Christmas season photos you can send for the 30 November newsletter. Like this:



Meanwhile here is a lovely pandemic poem, about how your nice clothes feel about being sidelined while you work from home.

# A Yearning to Wrinkle, By Charlie Pendergast

To break the spell of another *today* I put on a special shirt; crisply pressed, proud of its perfection, ready for the arena. It made its way to my daily chair, and innocent of guile began with purpose: it purported to be once again at large, in the world of men and women, buying, planning, scheming, celebrating, stealing little intimacies, shrouding secret pleasures in common lies, sharing random meals, running errands, running this, running that, running! But, really, no longer. My shirt now takes longer to wrinkle, and feels a longing to be stained over moments of wine, hopes in vain for a nearby face to share in the explosion of a laugh, and listens in despair to overhear a conversation not meant for it. It's desperate for an airing in a din, and then a satisfying drive home, anticipating a change into something more comfortable, and a reason to be sent off for its routine cleansing and renewal. It yearns for the casual tossing, to the floor, to the heap, and the drawstring sack; the cycle, the routine, the weekly play of choices and *replay*.



We've moved a few things around. Travel books are in the Fantasy section, Politics is in Sci-Fi, and Epidemiology is in Self-Help. Good luck. '

As Thanksgiving approaches in America, now's a good time to reflect on what we're thankful for, even though this has been a tough year.

Make a list.

Have a serene week everyone.

Listening to this a'capella song by lovely Duke students will take you there.

# **Bridge Over Troubled Water**

https://today.duke.edu/2020/11/speak-devil-bridge-over-troubled-water

