May 18, 2020 newsletter.

Dear Grey House team and esteemed colleagues,

75 days into this very strange team-building adventure. The successive stages of our adjustment have been tracked in this newsletter. A couple of newsletters back, I threatened to ask everyone to send pics of their hair, since many of us are moaning about not being able to get to the salon of our choice. And we seriously considered organizing a team caravan down to Georgia because they have opened barbershops and salons (and tattoo parlors). The chart below shows, once again, we are not alone. Solidarity rules. As covid-19 has forced barber shops and salons around the world to close, Google search data show the pandemic has caused a global surge in DIY haircare. Self-clipper buzzcuts have seen the biggest increase. Self-perms are out, thank goodness! My lovely sister-in-law Carolyn gave me a buzzcut, the same cut she gives my brother and my dad. At the end, she said, Well, my macular degeneration has progressed further than I thought. Hmmm………

![Chart showing Google trends for DIY haircare](chart.png)

**Last cut is the cheapest**

Google trends, 100 = February 2020 average

Seven-day average

Source: Google

The Economist

This week’s theme: WHAT WOULD MOM DO?

While we are thinking about solidarity, and in the week following Mother’s Day in the USA, this week’s theme is kindness, nurturing, helping, reaching out. The end of this newsletter will present your own photos of kindnesses received or given.
But first, our first-ever Grey House Goose-naming Competition! Ben and Karen have become nurturing parents to 4 young geese, and they invite team members to name them. Send your most fitting one, two, three or even a full set of four names, to benjamin.s.williams@duke.edu There will be a prize for the names chosen, we will figure out what the prize will be!

In this photo, it’s not possible to tell how HUUUUUGE these goslings are. On zoom, just one of them takes up all of Karen’s arms to hold it up to the computer camera. They are already bigger than a chicken.
Meanwhile, I will share news now and then to keep us all on the same page, approximately weekly-ish. Here is the all the news I have that’s fit to print since 4 May:

**FIRST THE HAPPY NEWS!**

**Elika and Zach’s baby arrived!** Aviva Tzeitel Bergelson-Kern joined us at 9:52 AM on May 14, 2020, weighing 7 Lbs. 7 oz. (3380 g) and measuring 20 in (50.8 cm).

**Aaron has been invited** to present our findings about lead exposure in childhood to Duke’s Integrated Toxicology and Environmental Health program seminar this fall. Details on the seminar here: [https://sites.nicholas.duke.edu/envhealth/seminars-symposia/](https://sites.nicholas.duke.edu/envhealth/seminars-symposia/)

**Aaron’s cool article, The Trees Will See You Now,** is published in *Our State Magazine.* On newsstands, or at [https://www.ourstate.com/trees-hiking-outdoor-therapy-doctors/](https://www.ourstate.com/trees-hiking-outdoor-therapy-doctors/)

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**HAPPY BIRTHDAYS**

**MAY**

- Susan
- JunaLeen
- Jasmin
- Aaron

**JUNE**

- 4-Jun
- 14-Jun
- 25-Jun
Andrea Danese’s new article with Cathy Widom is out in Nature Human Behaviour: Objective and subjective experiences of child maltreatment and their relationships with Psychopathology, https://doi.org/10.1038/s41562-020-0880-3

NEXT, SORRY, THE UNHAPPY NEWS:

Duke University announced that, in addition to hiring freezes and no pay rises this July, boo! ....the university will stop contributing to employee’s monthly retirement savings. This is a substantial reduction in employee remuneration. Health insurance is still in place, which is good!

King’s College London is putting staff on furlough in order to take advantage of the UK government’s offer to reimburse businesses for 80% of salaries for employees who cannot perform their jobs and go on furlough due to the pandemic. I had to make the case with HR, but none of our team members were furloughed.

A twin in the E-Risk Study has sadly died. Jo reported, “Very sad to report that I just got off the phone to one of our families. I spoke to mum as the other numbers were not working and she sadly told me that her son died whilst at University in 2018. We had a good chat and whilst she was obviously very upset she spoke fondly of the study and is going to help me get in touch with his brother… Which I will do very sensitively.”

Science visualizations:

Time to include more science in our newsletters. Here goes....

Leah sent in: At this link you can look up forecasts of how COVID19 incidence will be changing in future weeks, US state by state. Featured on NPR this morning. Nicholas Reich’s group at UMass-Amherst has put together a COVID-19 ‘forecast hub.’ This is an effort to combine information across the models being produced by different teams, which use different predictions, time scales, etc. If planning to visit a state, you can check if COVID19 cases are on the way up, or down, and how fast. https://reichlab.io/covid19-forecast-hub/
Max has prepared this depiction of how the Dunedin Pace of Aging, calculated based on biomarkers from phases 26, 32, 38, and 45, relates to structural integrity of the brain as scanned at Phase 45.
Renate has developed charts to show, for Dunedin Study members first diagnosed with depression at each Study Phase, which disorders they had before, and after, their first episode of depression.

If you have a great visualization, please send it for future newsletters.
PHASE-45 PROGRESS REPORT

It’s only been a year since the last Dunedin study member was seen at the Unit in April 2019! In last week’s newsletter I published a list of the papers, here is a summary.

Altogether over 20 papers from our team have reported findings from Phase 45 data this year, and these Phase 45 papers are appearing in great journals:

JAMA Network Open (x2), Cerebral Cortex, Neuroimage, Molecular Psychiatry (x2), Lancet-Psychiatry, Brain Communications, eLife, American J of Psychiatry, Psychological Science, J of Gerontology Medical Sciences, Psychology and Aging.

RESEARCH-PROJECT PROGRESS SINCE 11 May:

Aaron’s neighborhood methylation paper will be published on 1st June. Association of childhood neighborhood disadvantage with DNA methylation. JAMA Network Open.

Line and Jens have a new meta-analysis paper accepted: "Soluble urokinase plasminogen activator receptor (suPAR) as a prognostic marker of mortality in healthy, general, and patient populations: protocol for a systematic review and meta-analysis." BMJ Open.

New CP from Jessica Agnew-Blais approved: Genetic and early environmental risk factors for childhood ADHD symptoms in a population-based cohort.

Maria Gehred’s first-year project paper went out for mock review this week. Due the beginning of June. Long-term neurobiological embedding of adverse childhood experiences: a population-representative birth cohort followed for five decades.

Leah Richmond-Rakerd’s manuscript on self-control finished mock review last week and will soon be submitted. Thanks to all for the great reviews, especially Adam and Sean.

Joseph Dowsett’s suPAR GWAS paper finished mock review this week. Eleven Genomic Loci Affect Plasma Levels of Chronic Inflammation Marker Soluble Urokinase Plasminogen Activator Receptor

Marieke De Bruine’s paper from her Fulbright Fellowship visit to Grey House is ready to submit this week. Unraveling the association between peer victimization and systemic inflammation.
Tracy d’Arbeloff’s paper was submitted this week Is cardiovascular fitness associated with structural brain integrity in midlife? Evidence from a population-representative birth cohort study. Aging

Aaron and Max’s paper: Association of childhood lead exposure with structural brain integrity in midlife, is assigned to an editor at JAMA. Fingers crossed for full review.

Jessie Baldwin’s paper showing ACE’s don’t predict health at the level of the individual was submitted. Population and individual prediction of poor health from Adverse Childhood Experiences (ACEs) screening, is assigned to an editor at JAMA. Fingers crossed for full review.


Line’s paper is being revised for resubmission. Association between elevated suPAR, a new biomarker of chronic inflammation, and accelerated aging. J Gero Med Sci R&R

Tim Matthews’ paper is being revised for resubmission. This is what loneliness looks like: A mixed-methods study of loneliness in adolescence and young adulthood, International Journal of Behavioral Development. R&R

Kyle’s paper is being revised for resubmission: Intimate partner violence and lower relationship quality are associated with faster biological aging. Psychology and Aging R&R

Jasmin’s paper: Personality and healthy aging: Replicated evidence about life-course associations and familial transmission, is in review at Social Science and Medicine

Jasmin and Sophie von Stumm’s first paper (a commentary) as part of their Jacobs Foundation grant, is in review at NPJ Learning.

Temi and Avshalom’s Viewpoint essay: Behavioral and social science goals for the clinical geroscience agenda, is in review at JAMA

Jo Newbury’s paper, Association between genetic and environmental risk for schizophrenia during upbringing in a UK longitudinal cohort, is in review Psych Medicine.

Kyle’s paper, Lower cardiovascular reactivity is associated with more childhood adversity and poorer midlife health: Replicated findings from the Dunedin and MIDUS cohorts. in review Clinical Psychological Science.
Kyle's paper is still in review: Bourassa, Financial Stressors During the Great Recession and Mortality. *Psych Science*

JC's paper still in review: The development of perceptions of punishment risk from adolescence to middle adulthood. *Criminology.*

Jon Schaefer's paper still in review: No evidence for genetic moderation of the effects of adolescent victimization exposure on general psychopathology in the Environmental Risk Longitudinal Twin Study. *J of Abnormal Psychology*

Temi's paper still in review: Behavioral and social research to accelerate the geroscience agenda. *Aging Research Reviews, R&R.*


Aaron has contributed to a paper on neighborhood park access and child health behaviors using the US National Child Health Survey dataset, which has been invited for a revise and resubmit at *Preventive Medicine.* Reuben, A., James, J., Rutherford, G.W., Razani, N (under review). Association of neighborhood parks with child health in the U.S. National Survey of Children’s Health. *Preventative Medicine.*

Projects underway and making good progress on the march toward mock review:
Leah Richmond-Rakerd, mental disorder predicts physical disease and mortality
Leah and Signe, education disrupts the intergenerational transmission of disadvantage
Tracy Darbeloff, MAP lit review on fitness and brain
Max Elliott & Avshalom Caspi, Phase 45 PoA
Jasmin Wertz, Little p and aging
Jasmin Wertz, parenting genomics in multiple cohorts
Kyle Bourassa and Line Rasmussen, stressful life events and suPAR
Max Elliott & Line Rasmussen brain and suPAR
Karen Sugden, education and the methylation pace of aging
Geli Ronald and Lizzie, Autism Q and p
Franky Happe and David, Autism Q and midlife health

Jasmin submitted an application for cohort data from ALSPAC.

Duke Office of Licensing and Ventures continues to make progress on developing DunedinPoAm as an exportable and licensable technology. More about which later.

Stephanie d’Souza has been working inside the secure datalab in Auckland. Barry & Steph can now enter one at a time to work with Leah on NZIDI projects.
HonaLee has given Aaron an updated Dunedin dataset to begin investigating life course risk factors for ARDR (Alzheimer’s disease and related dementias).

Aaron has got preliminary results on air pollution and p-factor in the E-Risk cohort. Early story: exposure to nitrogen oxides across childhood predicts mild increased general psychopathology by age 18.

Antony Ambler, Renate, Maria, and Annchen, thank you for your reproducibility stat checks on papers in mock review. Thanks to all for working together on this to make our publications error-free, reproducibility has become our hallmark!

Susan is coordinating the grant application submission of Avshalom’s K07. She is also helping Stephanie Langevin. Susan is also working on visa extensions for Jasmin and Line. And estimating budget projections, out thru 2022.

Antony is working with Jo and Becky to finish the online survey of E-risk twins. He is also working with Sean to curate the new data set on Dunedin Study members’ family histories of dementia.

Renate is continuing the analyses of p across generations, and has started a new project on age of onset of mental illness.

Ben is getting our minus-80° tissue freezer fixed. He’s also creating polygenic scores, and delivered polygenic scores for dementia to Honalee this week. And feeding goslings.

Honalee created a new scale that measures health behaviors: The Nyberg index. It is based on alcohol consumption, smoking, physical activity & BMI. The Nyberg study derived this index as the best predictor for future mortality/morbidity.

Honalee and Antony are making data sets galore, and managing incoming CPs and end-of-project documentations.

Leah and Signe and Barry and Stephanie started a new project, on deaths of despair.

Sean and Ness are coding the Dunedin study members’ grandparent dementia data, while working at home in Portobello Bay.

Pat Motsavage is creating stunning visualizations for our publications. Thank you Pat!
What would mom do? Kindnesses received or given.


Every now and then
Say something nice
Say it to a friend
Say it to a teacher
Say it to your sister or brother or father or mother
Say something nice like
You remind me of flowers
Or
Your hair is like fresh bread
Or
I like sausages
Or
You’re better than asparagus
Or
I like you more than Simon
Just say something nice to make them feel good.
The world is sometimes gray and things go wrong
But kind words and a smile can turn it back around.
Say something nice like:
That wasn’t a very good poem, but I liked it when it stopped.

The Book of Hopes.
Children’s writers and illustrators in the UK put this book together over the last month or so and it’s available free to download.
https://issuu.com/bloomsburypublishing/docs/thebookofhopes_interactivepdf/2?ff
Here’s Amber, in Stockholm, doing home nursery-schooling.
From Annnchen:

Here’s me helping take care of future service dogs - not entirely selfless :-) but they are a lot of work!! The puppy pictured here is little Fauci :-)}
Elika gave Zach a daughter. Generous gift!

Grey House team sent flowers to congratulate former postdocs Madeline and Idan on their tenure.
Jasmin and Line sent Leah and Curt sweet treats for their lost wedding weekend. They even included biscuits for Eli.

Teddy bear in Barry’s Auckland window, neighbors put bears up so neighborhood children can count them on their walks.
Becky Gray visits her lovely mum in England.

I attach pic of me delivering shopping to my mum-who has self-isolated for weeks now (due to underlying health issues) but has been busy painting all her garden furniture and is about to start decorating her house. Certainly resilient!
Temi helps her dad, the real Terry Moffitt, with his patio garden. This garden shows what happens if a person with dementia adds fertilizer to his flowers every single day, forgetting that he only fertilized them just yesterday.
Sidra, Alex, and Sabine have been re-creating great art works, this is serious giving of to others of the joy of great art!
Antony Ambler sent this act of kindness received:

I thought the new laptop had arrived today actually, but it was a lovely bottle of single malt whiskey from my mum and sister. The note read “We’re with you in spirit”. 😊
Temi’s sister Marlene displays the generous birthday gift Temi gave her, a roll of toilet paper. It fits the new bathroom well!
Sol Israel sent these wonderful acts of generosity and kindness. These are ‘2 caps’ to enclose tubes and not allow them to contaminate other specimens when run in a centrifuge. Like many places in the world, Israel too was suffering from an initial shortage of testing capacity. Shaare Tzedek, a local hospital here in Jerusalem that dealt with the plurality of covid-19 cases in Israel was short on this little piece of safety equipment. Of course, delays of even a few days could be crucial, and the wait time from the supplier for new caps was a matter of weeks (this was in the first week of April, when cases here were skyrocketing). Anyways, I was able to lend them the caps I have at my lab, and hopefully did a little part to ease the strain in testing capacity.
Also from Sol, in Israel.

These are art supplies that Shosh and I purchased and donated to local families in need. We figured parents needed activities to entertain their kids during their extended at home stays. This guy carried all the supplies in a moving van and would go from neighborhood to neighborhood and deliver to families.
Stephanie in Auckland exchanging support with her dog.
From Christina Carlisi in London-

further to this week’s photo challenge, I sadly don’t have photo evidence, but we just got a massive grocery delivery mainly consisting of weeks’ worth of diapers, formula and baby wipes……, our neighbours have just had a baby and we’re helping them out to get all the supplies they need as many shops here have put strict limits on the amount you’re allowed to order - slowly realising the unbelievable amount you get through with a newborn!

Avshalom has been extending his kindness and generosity to baby mice.

See tiny video accompanying this newsletter.
Just consider the potential a pair of mice has to increase its numbers. Your original two parent mice may be around for two years and are able to produce as many as ten litters – approximately sixty mice – each year. And don’t forget, with every litter comes a new batch of mice ready to procreate after another six weeks. Unless you’re breeding them, these numbers show how a small mouse problem could develop into a serious situation in no time.
Pete kindly helps Clara on hikes.
Clara in turn makes art to cheer her parents.

And Jasmin cooks gifts to cheer others.

This pink icing cheers me!
As always, if anyone feels unwell, in body or spirit, please let me know. Strict confidentiality is guaranteed, as is a home delivery of chicken soup, and chocolate chip cookies. Fondly, Temi