

## References

### Aktuell

CAMPAGNARI 2022

Claudio Campagnari & Martijn Mulders, *An upset to the standard model*. *science* **376** (2022), 136.

Latest measurement of the W boson digs at the most important theory in particle physics.

CHO 2022

Adrian Cho, *New estimate of W boson mass conflicts with prediction from “standard model”*. *science* **376** (2022), 125.

LARSEN 2022

Bradley Larsen, Marc J. Hetherington, Steven H. Greene, Timothy J. Ryan, Rahsaan D. Maxwell & Steven Tadelis, *Using Donald Trump’s COVID-19 Vaccine Endorsement to Give Public Health a Shot in the Arm, A Large-Scale Ad Experiment*. *Online 2022, Apr. 1*. <<http://www.nber.org/papers/w29896>> (2022-04-11).

We report a large-scale randomized controlled trial designed to assess whether the partisan cue of a provaccine message from Donald Trump would induce Americans to get COVID-19 vaccines. Our study involved presenting a 27-second advertisement to millions of U.S. YouTube users in October 2021. Results indicate that the campaign increased the number of vaccines in the average treated county by 103. Spread across 1,014 treated counties, the total effect of the campaign was an estimated increase of 104,036 vaccines. The campaign was cost-effective: with an overall budget of about \$ 100,000, the cost to obtain an additional vaccine was about \$1 or less.

STADLER 2022

Eva Stadler et al., *Determinants of passive antibody effectiveness in SARS-CoV-2 infection*. *medRxiv* **2022**, Mar. 22. DOI:10.1101/2022.03.21.22272672.

Neutralising antibodies are an important correlate of protection from SARS-CoV-2 infection. Multiple studies have investigated the effectiveness of passively administered antibodies (either monoclonal antibodies, convalescent plasma or hyperimmune immunoglobulin) in preventing acquisition of or improving the outcome of infection. Comparing the results between studies is challenging due to different study characteristics including disease stage, trial enrolment and outcome criteria, and different product factors, including administration of polyclonal or monoclonal antibody, and antibody targets and doses. Here we integrate data from 37 randomised controlled trials to investigate how the timing and dose of passive antibodies predicts protection from SARS-CoV-2 infection. We find that both prophylactic and early therapeutic administration (to symptomatic ambulant subjects) have significant efficacy in preventing infection or progression to hospitalisation respectively. However, we find that effectiveness of passive antibody therapy in preventing clinical progression is significantly reduced with administration at later

clinical stages ( $p < 0.0001$ ). To compare the dose-response relationship between different treatments, we normalise the administered antibody dose to the predicted neutralisation titre (after dilution) compared to the mean titre observed in early convalescent subjects. We use a logistic model to analyse the doseresponse curve of passive antibody administration in preventing progression from symptomatic infection to hospitalisation. We estimate a maximal protection from progression to hospitalisation of 70.2% (95% CI: 62.1 – 78.3%). The dose required to achieve 50% of the maximal effect (EC-50) for prevention of progression to hospitalisation was 0.19fold (95% CI: 0.087 – 0.395) of the mean early convalescent titre. This suggests that for current monoclonal antibody regimes, doses between 7- and >1000-fold lower than currently used could still achieve around 90% of the current effectiveness (depending on the variant) and allow much more widespread use at lower cost. For convalescent plasma, most current doses are lower than required for high levels of protection. This work provides a framework for the rational design of future passive antibody prophylaxis and treatment strategies for COVID-19.

Eva Stadler, Khai Li Chai, Timothy E. Schlub, Deborah Cromer, Mark N. Polizzotto, Stephen J. Kent, Nicole Skoetz, Lise Estcourt, Zoe K. McQuilten, Erica M. Wood, David S. Houry & Miles P. Davenport

## Amerika

CLARK 2022

Jorie Clark, Anders E. Carlson & Dylan H. Rood et al., *The age of the opening of the Ice-Free Corridor and implications for the peopling of the Americas*. *PNAS* **119** (2022), e2118558119.

[pnas119-e2118558119-Supplement.pdf](#)

The Clovis-first model for the peopling of the Americas by  $\approx 13.4$  ka has long invoked the Ice-Free Corridor (IFC) between the retreating margins of the Cordilleran and Laurentide ice sheets as the migration route from Alaska and the Yukon down to the Great Plains. Evidence from archaeology and ancient genomics, however, now suggests that pre-Clovis migrations occurred by at least  $\approx 15.5$  to 16.0 ka or earlier than most recent assessments of the age of IFC opening at  $\approx 14$  to 15 ka, lending support to the use of a Pacific coast migration route instead. Uncertainties in ages from the IFC used in these assessments, however, allow for an earlier IFC opening which would be consistent with the availability of the IFC as a migration route by  $\approx 15.5$  to 16.0 ka. Here, we use 64 cosmogenic ( $^{10}\text{Be}$ ) exposure ages to closely date the age of the full opening of the IFC at  $13.8 \pm 0.5$  ka. Our results thus clearly establish that the IFC was not available for the first peopling of the Americas after the Last Glacial Maximum, whereas extensive geochronological data from the Pacific coast support its earlier availability as a coastal migration route.

**Keywords:** archaeology | Ice-Free Corridor | exposure ages

Jorie Clark, Anders E. Carlson, Alberto V. Reyes, Elizabeth C. B. Carlson, Louise Guillaume, Glenn A. Milne, Lev Tarasov, Marc Caffee, Klaus Wilcken & Dylan H. Rood

**Significance:** The Ice-Free Corridor (IFC) has long played a key role in hypotheses about the peopling of the Americas. Earlier assessments of its age suggested that the IFC was available for a Clovis-first migration, but subsequent developments now suggest a preClovis occupation of the Americas that occurred before the opening of the IFC, thus supporting a Pacific coastal migration route instead. However, large uncertainties in existing ages from the IFC cannot preclude its availability as a route for the first migrations. Resolving this debate over migration

route is important for addressing the questions of when and how the first Americans arrived. We report cosmogenic nuclide exposure ages that show that the final opening of the IFC occurred well after pre-Clovis occupation.

## Bibel

### DONNELLY-LEWIS 2022

Brian Donnelly-Lewis, *Thoughts on the “Curse” text from Mount Ebal, Epigraphic, Linguistic, and Logical Red Flags*. Online 2022, Apr. 8. <[http://www.academia.edu/attachments/83499640/download\\_file](http://www.academia.edu/attachments/83499640/download_file)> (2022-04-11).

Gershon Galil noted that the author of this text was a “genius” and capable of “writing every chapter in the Hebrew Bible.” One wonders how many letters one must write to become a ‘genius,’ as the present writer (if proposal #1 is correct) wrote a total of nine Hebrew letters, or just under half of the 22 letters of the Hebrew alphabet. Likewise, if the writer was capable of “writing every chapter in the Hebrew Bible,” why was the writer incapable of geminating when necessary – considering that scribes at Ugarit had no problem geminating when lexically necessary?

### ROLLSTON 2022

Christopher Rollston, *The Mount Ebal Lead ‘Curse’ Inscription in Late Bronze Age Hebrew, Some Methodological Caveats*. Online 2022, Mar. 26. <<http://www.rollstonepigraphy.com/?p=949>> (2022-04-11).

In sum, I would mostly suggest that we step back and let the dust settle on this one. It seems to me that Stripling, Galil, and van der Veen have made a fair number of big assumptions. Moreover, I am far from convinced of their readings—especially since they have not even provided so much as a single good image!

And it also seems to me that the best predictor of the future is the past, and in the past, time and time again, sensational claims turn to ash in the crucible of serious, philological and epigraphic analysis. So, let’s wait and see how this turns out. But as for me, I’m afraid that I’m too methodologically cautious to embrace the sensational assumptions of Stripling, Galil, and van der Veen.

### STREIT 2022

Katharina Streit & Felix Höflmayer, *Die assyrische Eroberung der Südlevante und Ägyptens, Ein Vergleich textlicher und archäologischer Evidenzen von Niederlage und ihrer Rezeption*. In: STEFAN JAKOB WIMMER & WOLFGANG ZWICKEL (Hrsg.), *Ägypten und Altes Testament, Fachtagung “40 Jahre ÄAT”, München, 6.–7. Dez. 2019*. *Ägypten und Altes Testament* 100 (Münster 2022), 181–209.

This paper examines the impact on, and responses by, the defeated parties in the southern Levant and Egypt following their conquest by the Assyrian Empire in the late 8th and early 7th century BCE, by tracing the political, economic, and socio-demographic transformations of the vanquished. Conquests and military conflicts in antiquity have traditionally been explored from the viewpoint of the victor, and have rarely focused on the defeated party whose experiences were often significant, traumatic, and enduring. Such a defeat was experienced in the southern Levant after the expansion of the Neo-Assyrian Empire in the late 8th century

BCE. Assyria subdued the northern Kingdom of Israel in 720 BCE and conquered the southern Kingdom of Judah shortly thereafter. These defeat events resonate in the cultural and religious traditions of the region, and beyond, to this day. Examining the archaeological record, the Assyrian sources, and the Biblical account and related epigraphic evidence, substantial changes and adaptations in political (modes of governance, pax Assyriaca, acceptance and resistance), economic (production, consumption, trade, subsistence) and socio-demographic (deportations, refugees, gender aspects) aspects of defeat can be discerned.

Tracing defeat in Egypt and Egyptology on the other hand is more complicated. Despite the fact that several traumatic events have happened during the course of several thousands of years of Egyptian history, the reconstruction of defeats often relies on circumstantial evidence, external or much later sources. This absence of defeat accounts stands in stark contrast to the textual corpus of the neighbouring ancient Near East, where similar events are acknowledged in the Hebrew Bible or in Mesopotamian sources. In order to trace defeat in Egypt, textual evidence relating to the Assyrian conquest of Egypt is being discussed and contrasted with the archaeological data. While a detailed reconstruction is possible based on the Assyrian texts, we almost lack suitable Egyptian sources. The archaeological record seems to be silent as well, whereas we find archaeological traces of booty and deportees in Assyria. This discrepancy between the archaeological record in Egypt and the textual sources will be compared to the evidence from the Levant and questions will be posed in which way short-term political/military events could manifest themselves in the archaeological record.

## Klima

VAN DER MEEREN 2022

Thijs van der Meeren et al., *A predominantly tropical influence on late Holocene hydroclimate variation in the hyperarid central Sahara*. *Science Advances* 8 (2022), eabk1261. DOI:10.1126/sciadv.abk1261.

SciAdv08-eabk1261-Supplement.pdf

The climate history of the Sahara desert during recent millennia is obscured by the near absence of natural climate archives, hampering insight in the relative importance of southerly (tropical) and northerly (midlatitude) weather systems at submillennial time scales. A new lake sediment record from Ounianga Serir oasis in northern Chad, spanning the Late Holocene without interruption, confirms that immediately before ca 4200 years ago, the Sahara experienced an episode of hyperaridity even more extreme than today's desert climate. The hypersaline terminal lake which formed afterwards never desiccated during the late Holocene due to continuous inflow of fossil groundwater, yet its water balance was sensitive to temporal variation in local rainfall and lake surface evaporation. Our in-lake geochemical proxies show that, during the last 3000 years, century-scale hydroclimate variation in the central Sahara primarily tracked the intensity of the tropical West African monsoon, modulated at shorter time scales by weather patterns linked to shifts in midlatitude Atlantic Ocean circulation.

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