Matz Andreas Haugen
Enerhauggata 1, 0651, Oslo, Norway
✉ *matzhaugen@gmail.com*

To May 18, 2022
Editor,
Nature,

Initial submission of manuscript titled: “Unifying Gompertzian growth with the communicable disease spreading paradigm”

Respected Editor,

We hereby submit a manuscript where we seek to connect the communicable disease paradigm with the recently observed mortality patterns of the initial Coronavirus pandemic in March 2021 that have been shown by many to exhibit Gompertzian growth. In the manuscript, we show that this type of growth pattern is incompatible with a traditional communicable disease spreading models, i.e. the SIR (Susceptible-Infected-Recovered) model family of Kermack and McKendrick. Instead, the observed patterns can cleanly be explained by a simpler model without the need for a disease propagating stage, but rather through a ubiquitous stressor which elicits a mutual stress response, amounting to a 2-parameter model. The mathematical thesis is based on a simple Stochastic Differential Equation where the stress response is a random process, interpretable both at the macroscopic or the microscopic level. We also show a remarkable connection between coherent behavior previously relegated to microscopic quantum domains, now exhibited in national mortality patterns.

Our results has the potential to shift the entire field of pathogenic disease modeling away from that of a purely communicable paradigm to a hybrid where the environment plays a bigger role. The arguments in the paper are based purely on mathematical and physical grounds as we do not wish to cover too large a scope, but clearly this paper fits into a larger discussion on the communicable disease paradigm which we feel is missing in the current scientific debate.

If you do decide to review this paper you may find the enclosed list of possible referees helpful. Some of them are listed in the references of the manuscript.

Thank you for your consideration.

Sincerely yours,

Matz Andreas Haugen

Enclosed :
List of referees

List of possible referees

1. N. El Karoui, mathematics, stochastic models
2. M. Molski, physics, Gompertz and quantum systems
3. W. Whitt, mathematics, stochastic models
4. N. C. Petroni, E. De Lauro, physics, Gompertz
5. E. B. Postnikov, physics, SIR models
6. G. Vattay, physics, SIR models
7. M. Levitt, computational biology, Gompertz models
8. E. Estrada, mathematics, graph theory, SIR models
9. T. Carletti, D. Fanelli, and F. Piazza, physics, SIR models
10. Z. Bajzer, biology, has a very good review paper on Gompertz modeling
11. J. C. Mombach, physics, growth models
12. B. Shklovskii, physics, theory of Gompertz
13. D. Smilkov, C. or L. Kocarev, physics and mathematics, SIR models
14. C. G. Antonopoulos, physics, chaos and SIR models
15. K. Rypdal and M. Rypdal, mathematics, SIR models