

The development and implementation of an anti-GnRF immunological product to reduce behavioral stress of 5.0 giraffe

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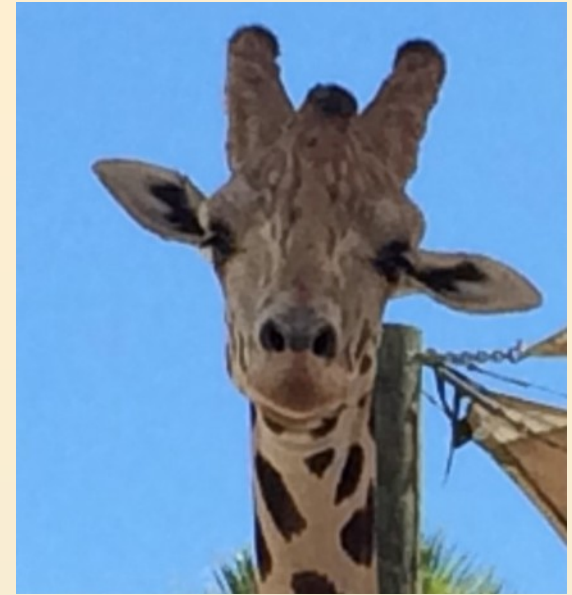




Bruehler



Bolo



Zuri



Timber

**The
Bachelors**



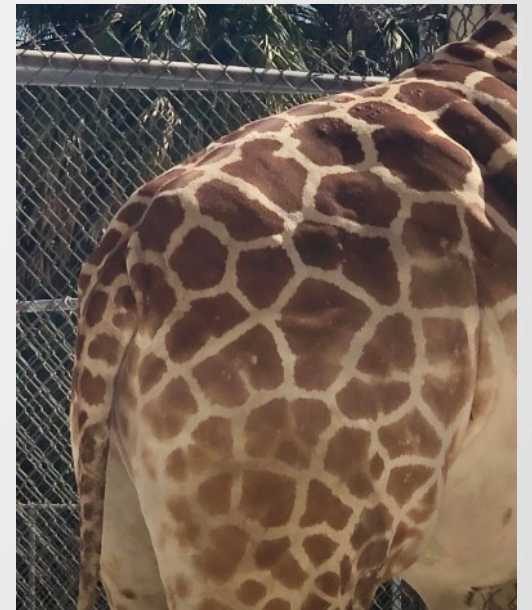
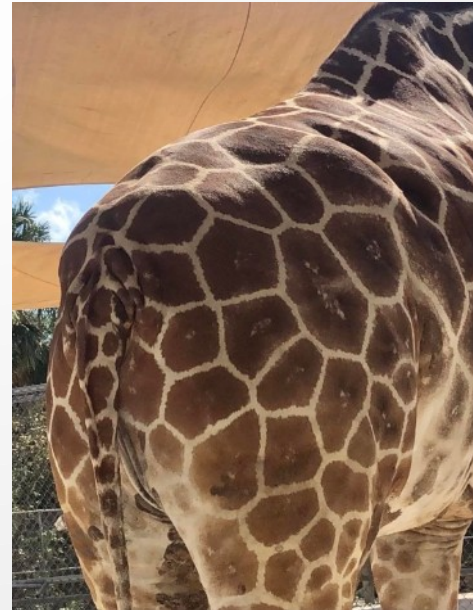
Jumanji



Things to consider:

- Which giraffe would receive the Improvest? Select individuals or the whole herd?
- How would we evaluate the influence of the product on the herd physically and socially?
- Method of administration- IM injection: Is this possible with our herd?
- Cost of product and data analysis- fecal samples would need to be sent out for sampling.

- Possible side effects of product
 - feminization
 - **reduced testicular size**
 - **possible weight gain**



Charted Behaviors



- Following
- Guarding
- Mounting
- Lining up
- Policing
- Displacing
- Lining up
- Necking
 - Mild
 - Medium
 - High

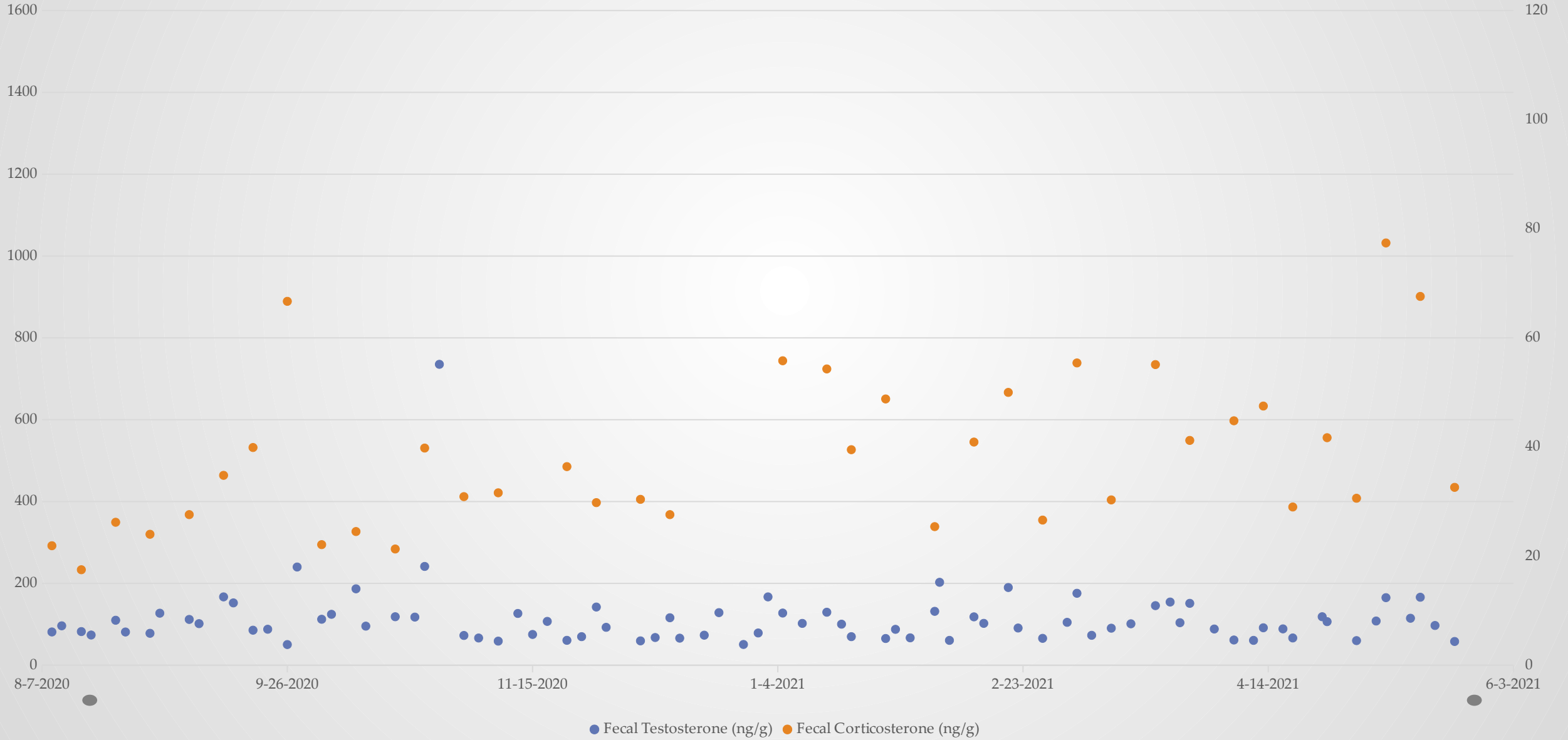


Dates of Improvest injections:

- July 18, 2019 – initial dose
- August 16, 2019- booster dose
 - December 12, 2019
 - May 2, 2020
 - October 22, 2020
 - April 2, 2021
 - August 19, 2021
 - December 9, 2021
 - April 28, 2022



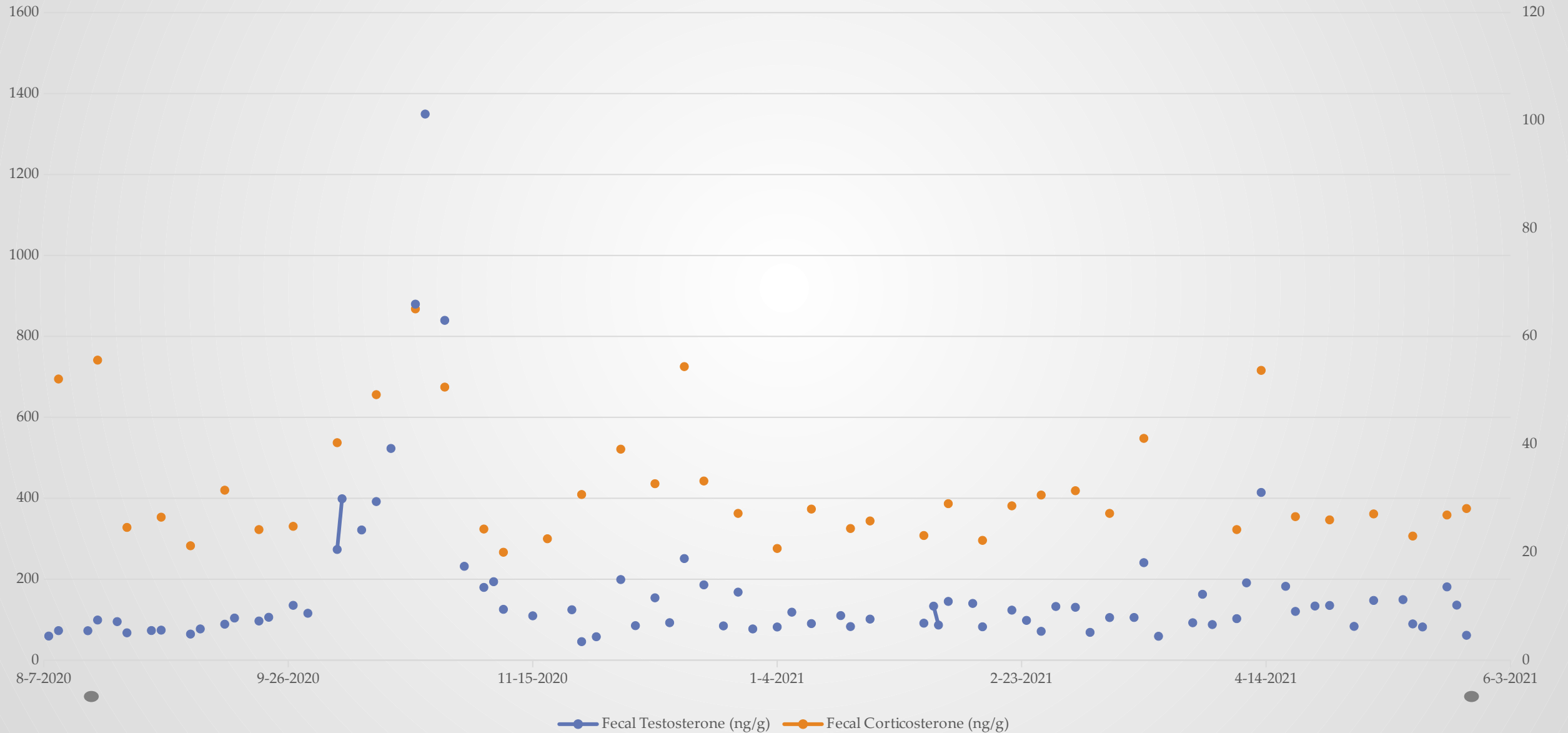
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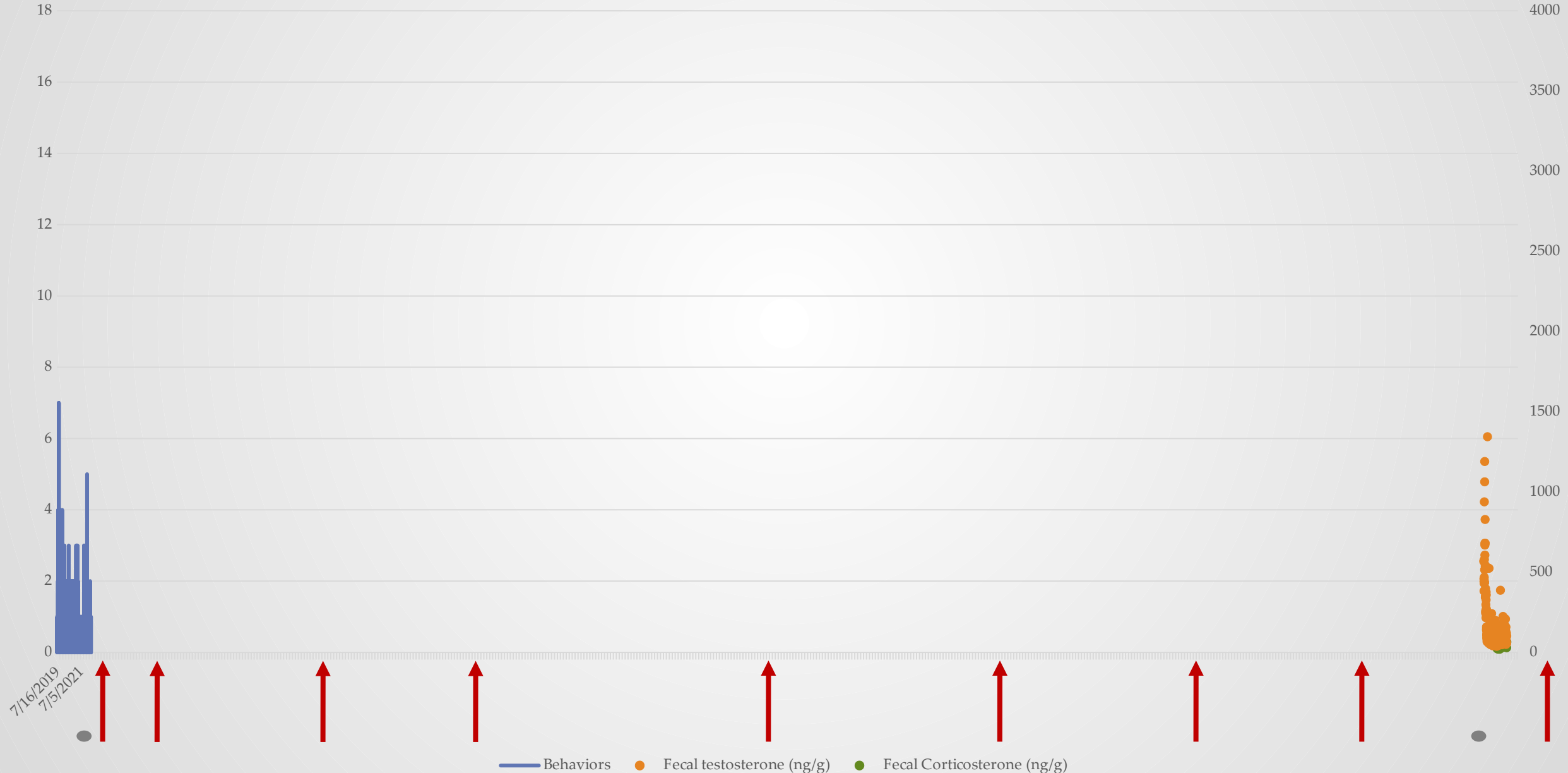
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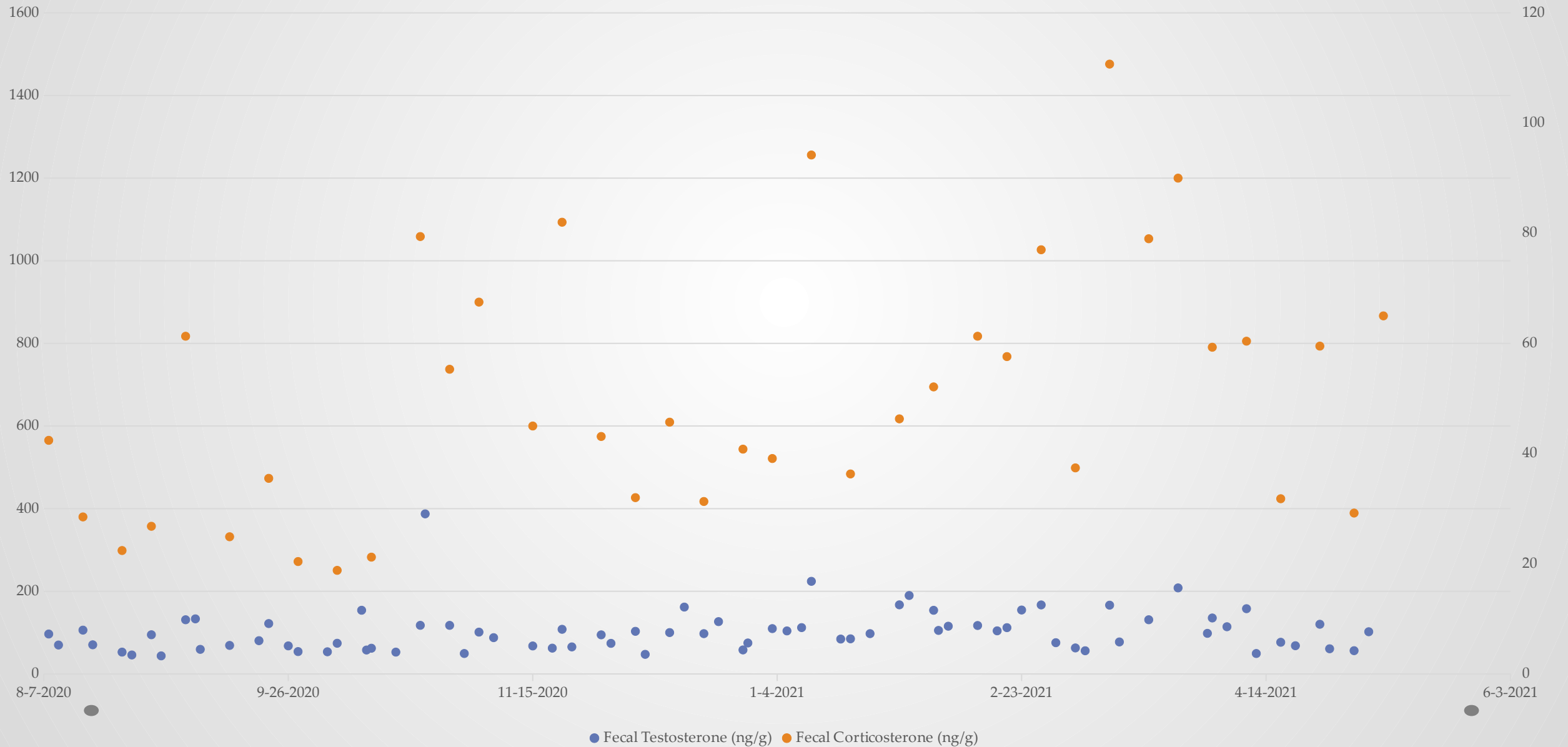


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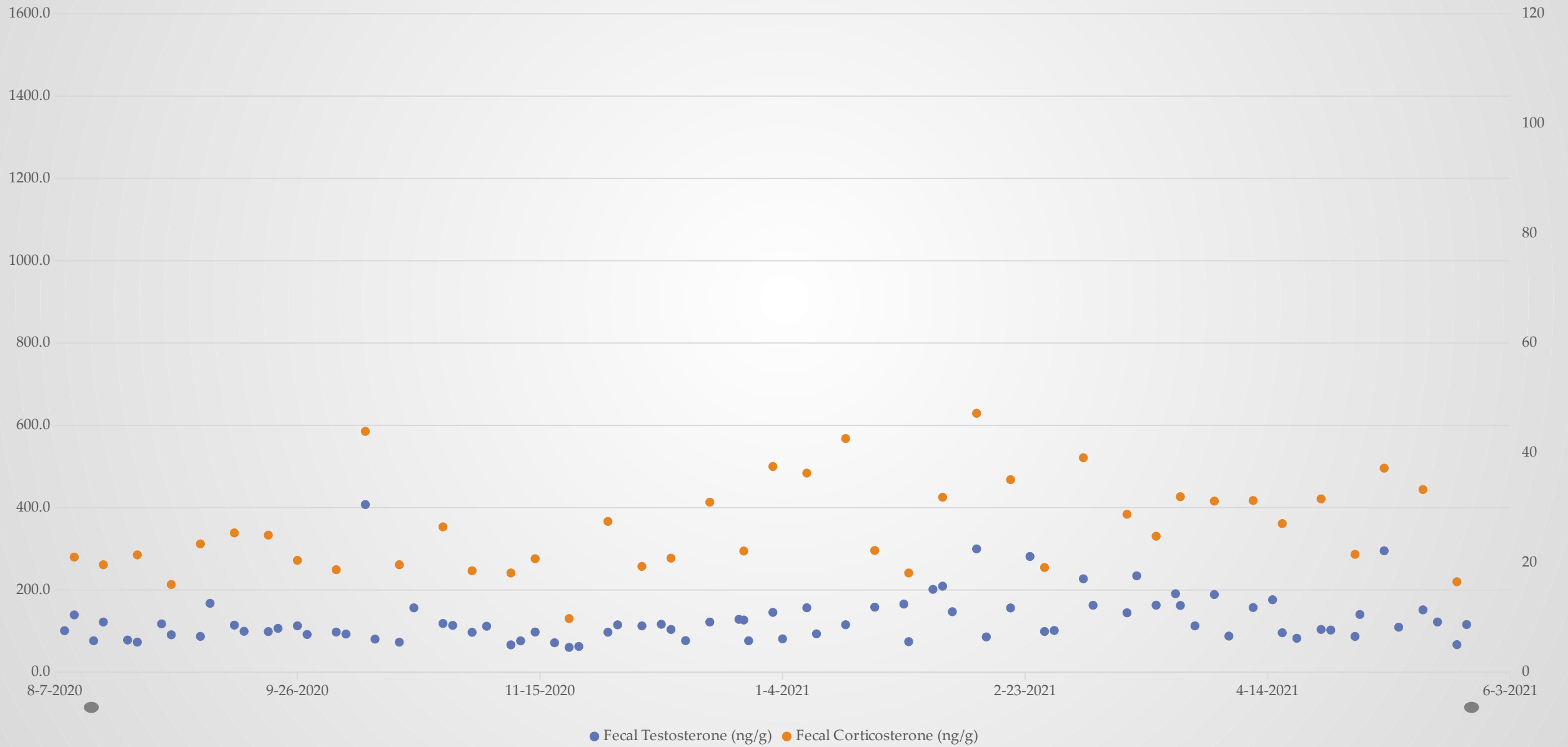


Behaviors Fecal testosterone (ng/g) Fecal Corticosterone (ng/g)

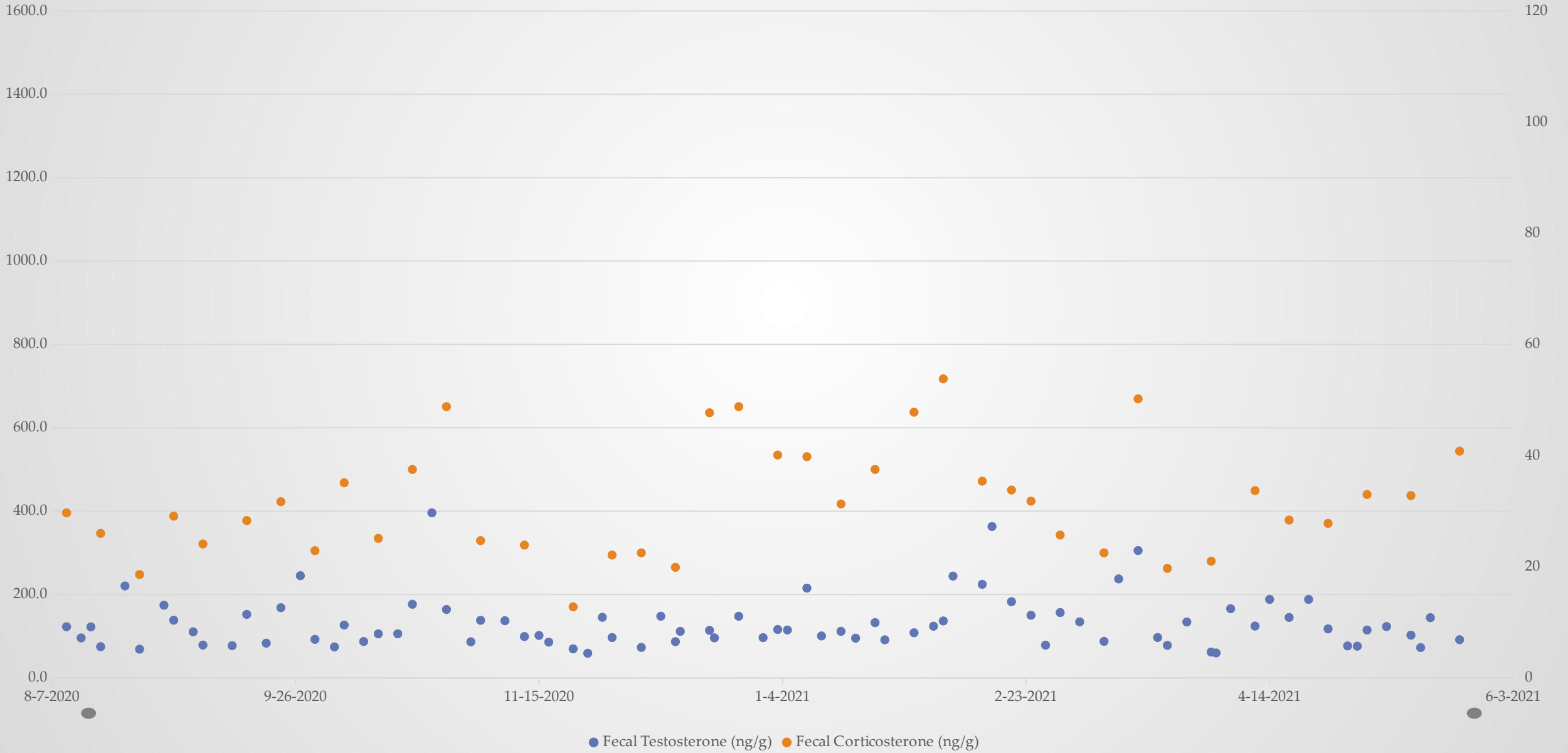
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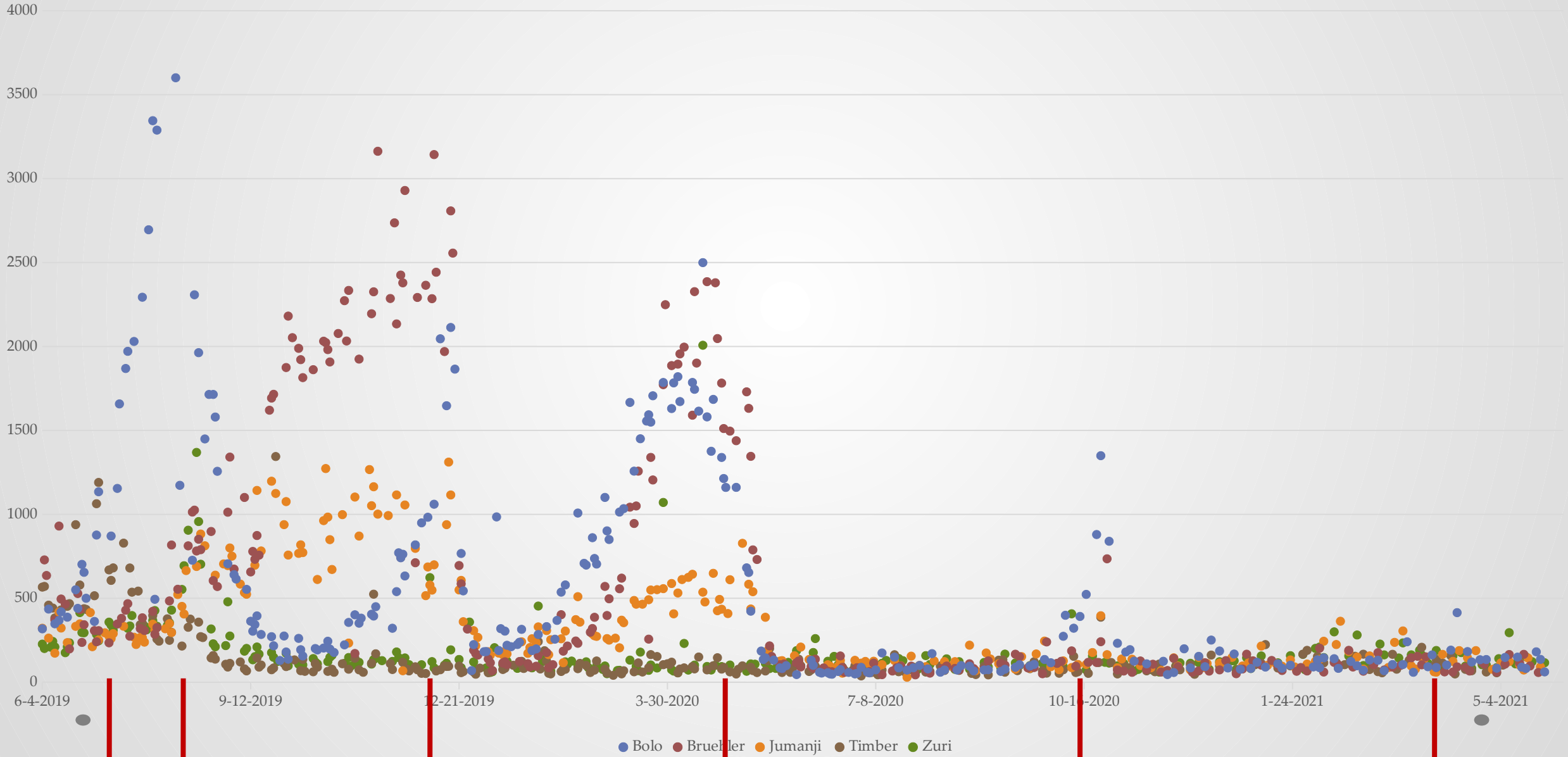
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Testosterone Comparison





Acknowledgements and Thanks to:



- **Naples Zoo animal care & veterinary team**- for your constant support and efforts towards the implementation of this protocol, data collection and high standard of care that you continue to provide to our animals.
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- **Corinne Kozlowski, Ph.D. STL Zoo**- for your efforts to provide evaluation and hormone data of “several” (2 years) fecal samples.
- **Dr. Liza Dadone, VMD, CMZoo**- for your counsel of the initial concept of this protocol.
- **Zoetis**- for your support in this project.

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