**Supplements**

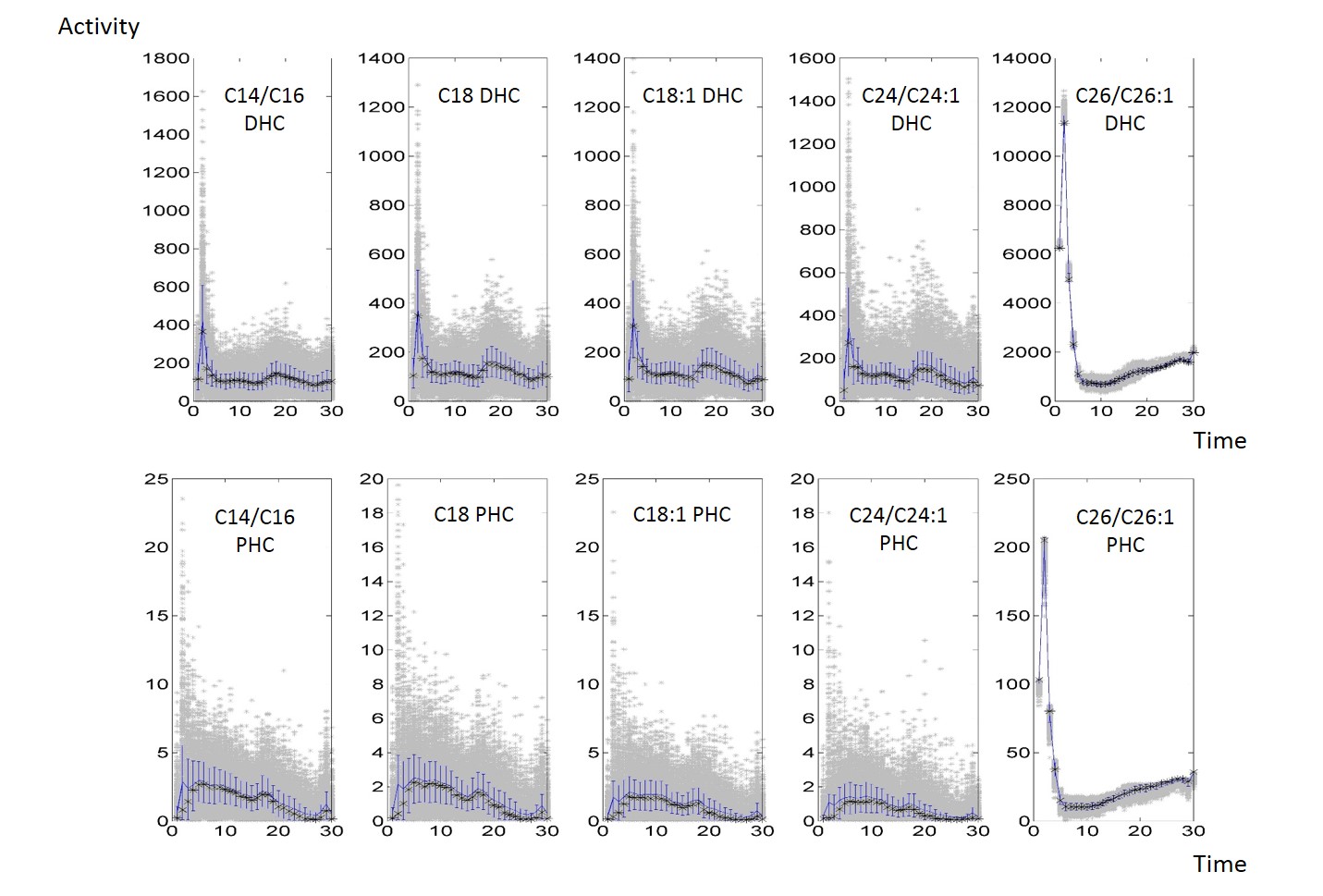
**Dynamics of the Heat Stress Response of Ceramides with Different Fatty-Acyl Chain Lengths in Baker’s Yeast**

**Po-Wei Chen, Luis L. Fonseca, Yusuf A. Hannun, Eberhard O. Voit**

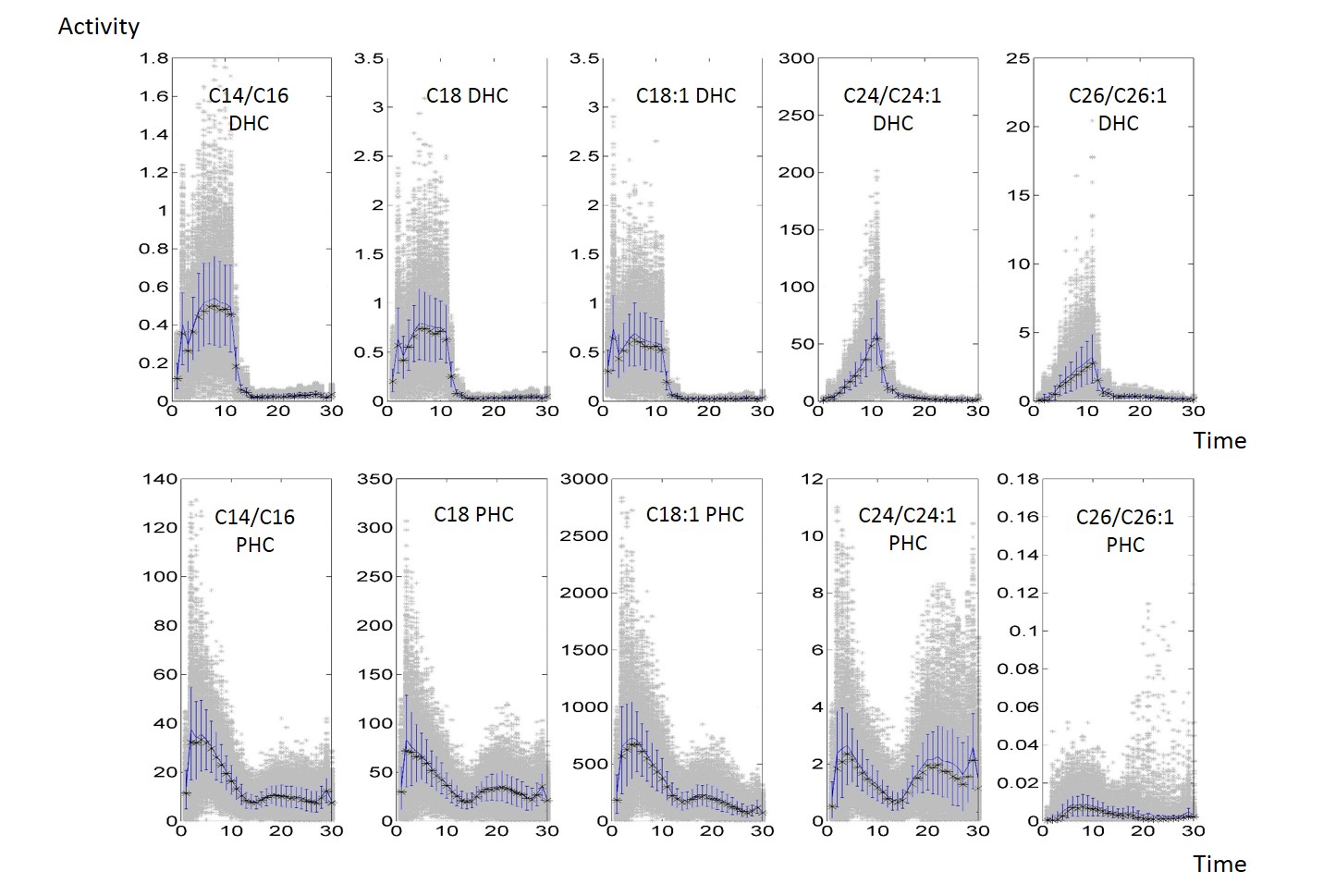
**S3 Text: Magnitudes of enzyme activities**

It was already mentioned in the main text that the actual enzyme amounts and rate constants are not known. As it is typical, we assume that enzyme activities enter a flux representation in a linear manner. With this assumption we obtain coarse estimates of the product of the rate constant and the enzyme activity. This product corresponds to a *Vmax* value, which by definition consists of the product of *kcat* and the total enzyme concentration. Coarse estimates of the ceramide synthase activities are presented in the main text; all other enzyme activities are shown here. Gray dots (which merge into a grey region in each plot) show the individual simulation results; blue lines indicate the means; vertical blue bars correspond to the 20th and 80th percentiles; black asterisks are medians. It is clear that the means and medians are quite similar.

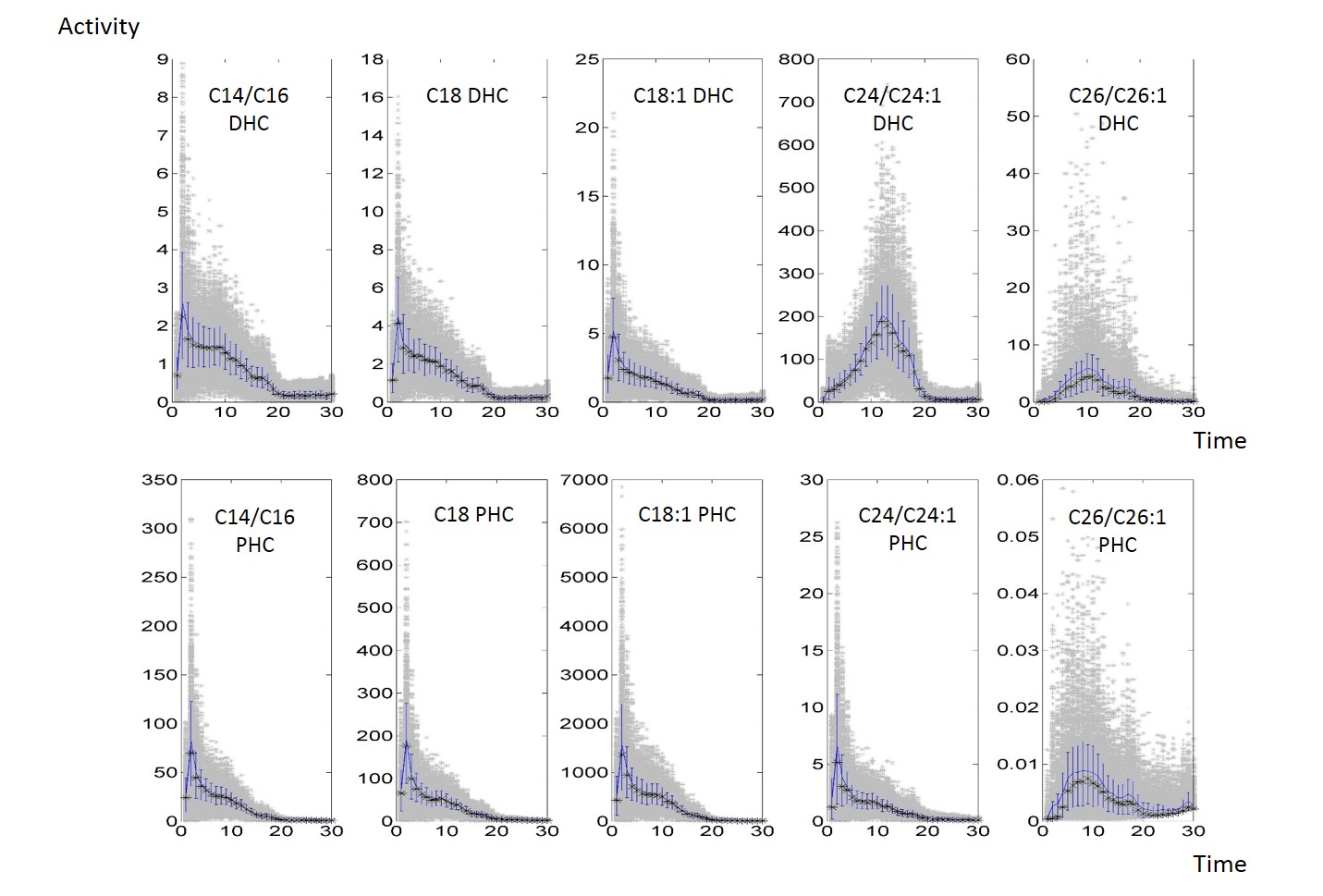
**Ceramide Synthase**



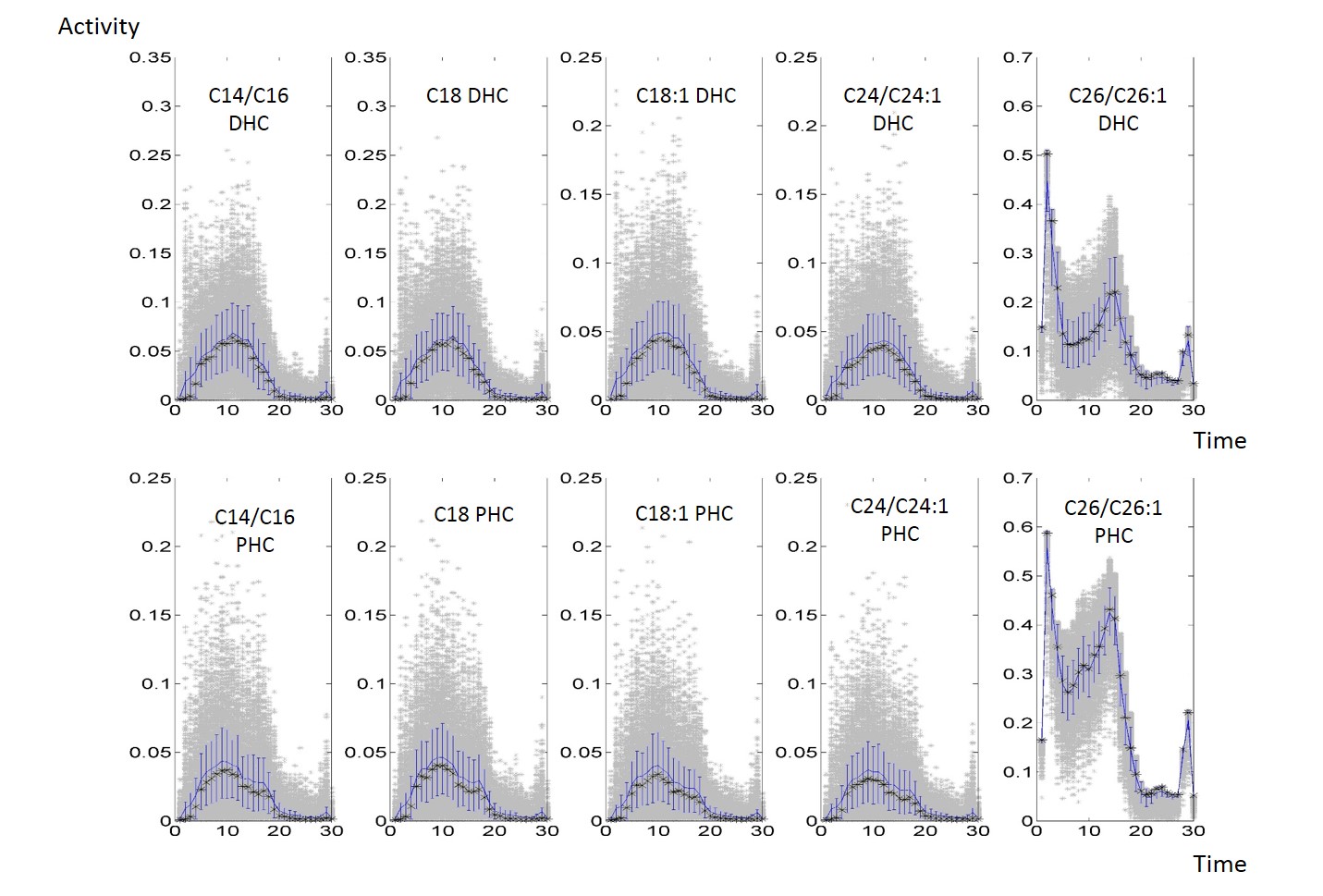
**Dihydroceramidase & Phytoceramidase**

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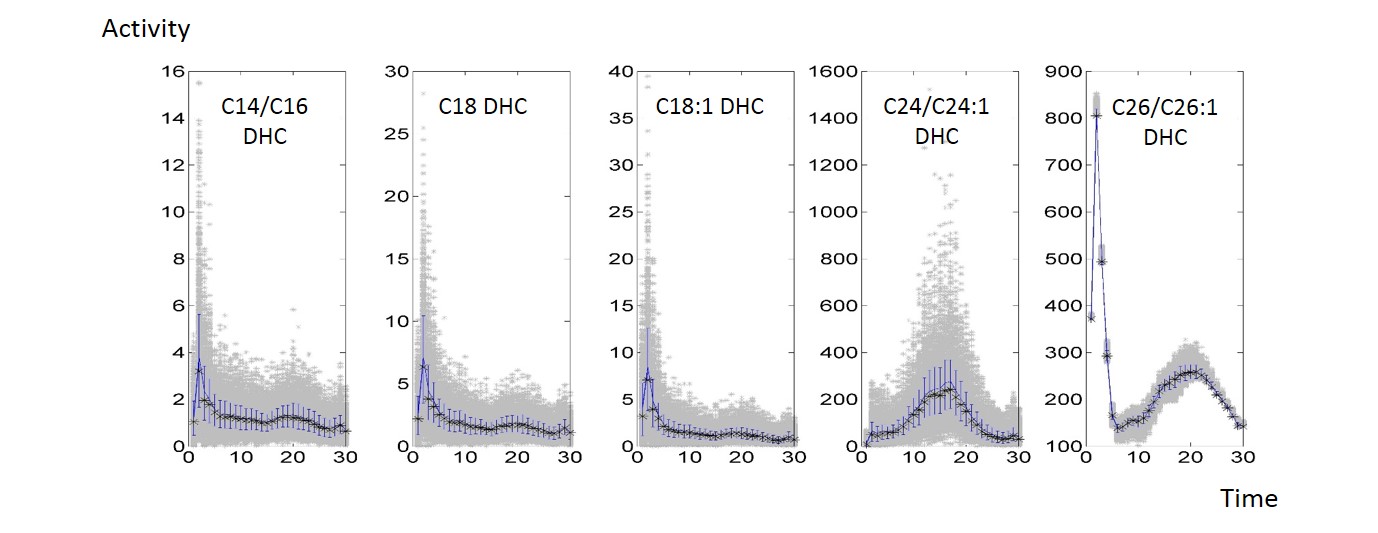
**IPC synthase**

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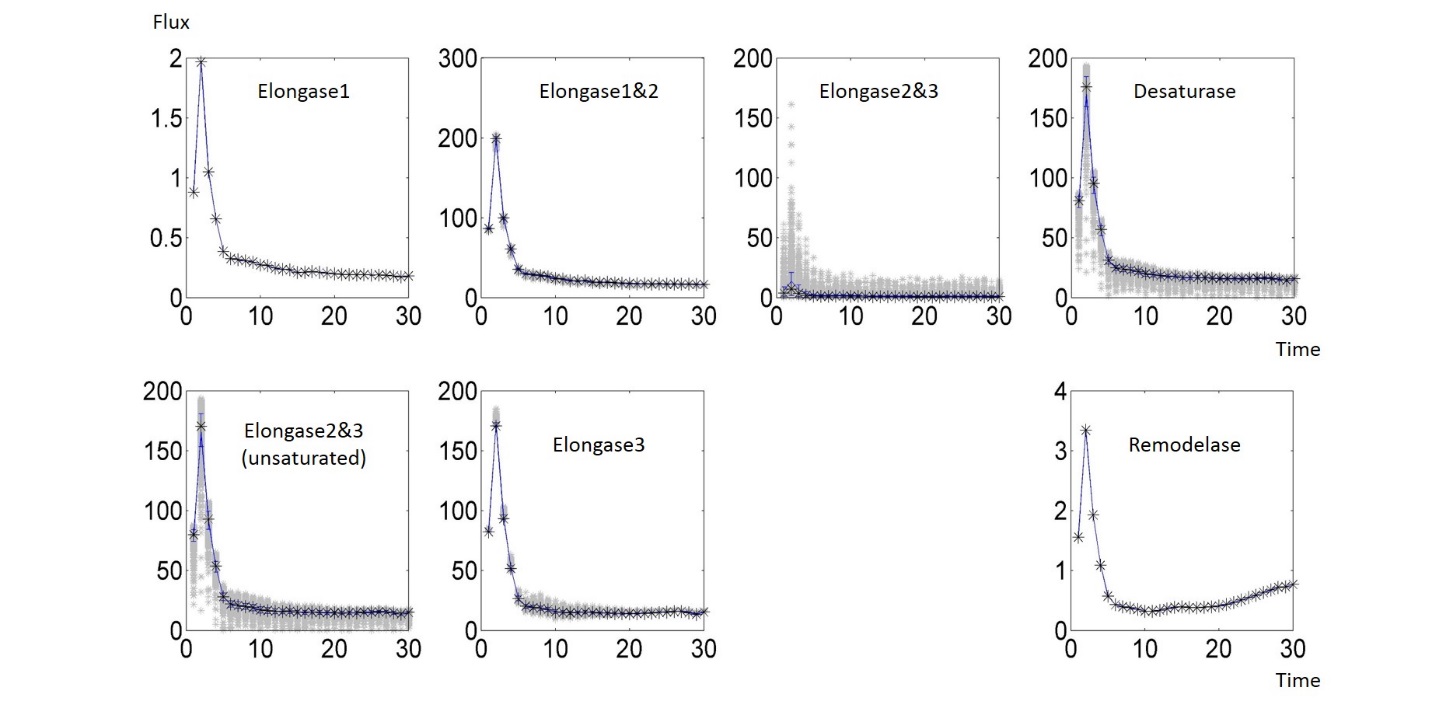
**IPCase**

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**Hydroxylase**

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**Elongases 1, 2, 3, Remodelase, and Desaturase**

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**Figure S2: Simulation results for enzyme activities over time, as well as means (blue), medians (black asterisks), and 20th and 80th percentiles (blue bars).** Compare with Fig. 11 in the Text.