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Measuring glucose uptake in Drosophila models of TDP-43 proteinopathy

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TITLE:

Measuring Glucose Uptake in *Drosophila* Models of TDP-43 Proteinopathy

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KEYWORDS:

glucose sensor, ALS, *Drosophila*, TDP-43, proteinopathy

SUMMARY:

Glucose uptake is increased in *Drosophila* motor neurons affected by TAR DNA binding protein (TDP-43) proteinopathy, as indicated by a FRET-based, genetically encoded glucose sensor.

ABSTRACT:

Amyotrophic lateral sclerosis is a neurodegenerative disorder causing progressive muscle weakness and death within 2–5 years following diagnosis. Clinical manifestations include weight loss, dyslipidemia, and hypermetabolism; however, it remains unclear how these relate to motor neuron degeneration. Using a *Drosophila* model of TDP-43 proteinopathy that recapitulates several features of ALS including cytoplasmic inclusions, locomotor dysfunction, and reduced lifespan, we recently identified broad ranging metabolic deficits. Among these, glycolysis was found to be upregulated and genetic interaction experiments provided evidence for a compensatory neuroprotective mechanism. Indeed, despite upregulation of phosphofructokinase, the rate limiting enzyme in glycolysis, an increase in glycolysis using dietary and genetic manipulations was shown to mitigate locomotor dysfunction and increased lifespan in fly models of TDP-43 proteinopathy. To further investigate the effect on TDP-43 proteinopathy on glycolytic flux in motor neurons, a previously reported genetically encoded, FRET-based sensor, FLII12Pglu-700μδ6, was used. This sensor is comprised of a bacterial glucose-sensing domain and cyan and yellow fluorescent proteins as the FRET pair. Upon glucose binding, the sensor undergoes a conformational change allowing FRET to occur. Using FLII12Pglu-700μδ6,

glucose uptake was found to be significantly increased in motor neurons expressing TDP-43^{G298S}, an ALS causing variant. Here, we show how to measure glucose uptake, *ex vivo*, in larval ventral nerve cord preparations expressing the glucose sensor FLII12Pglu-700μδ6 in the context of TDP-43 proteinopathy. This approach can be used to measure glucose uptake and assess glycolytic flux in different cell types or in the context of various mutations causing ALS and related neurodegenerative disorders.

INTRODUCTION:

Amyotrophic Lateral Sclerosis (ALS) is a progressive neurodegenerative disorder that is currently incurable. ALS affects upper and lower motor neurons leading to loss of motor coordination, irreversible paralysis, respiratory failure, and eventual death within 2–5 years of diagnosis¹. ALS is associated with metabolic defects such as weight loss, dyslipidemia, and hypermetabolism (reviewed in²); however, it remains unclear how these alterations in metabolism relate to motor neuron degeneration. A common denominator in ALS and related neurodegenerative diseases is TDP-43, a nucleic acid binding protein involved in several steps of RNA processing^{3–5}. Although mutations in TDP-43 only affect 3%–5% of patients, wild-type TDP-43 protein is found within cytoplasmic aggregates in >97% of ALS cases reviewed in⁶. This pathology was modeled in *Drosophila* by overexpression of human wildtype or mutant TDP-43 (G298S) in motor neurons, which recapitulates multiple aspects of ALS, including cytoplasmic inclusions, locomotor dysfunction and reduced lifespan^{7,8}. Using these models, it was recently reported that TDP-43 proteinopathy causes a significant increase in pyruvate levels and phosphofructokinase (PFK) mRNA, the rate limiting enzyme of glycolysis⁹. Similar increases in PFK transcripts were found in patient-derived motor neurons and spinal cords, suggesting that glycolysis is upregulated in the context of TDP-43 proteinopathy. Interestingly, further increase in glycolysis using dietary and genetic manipulations mitigated several ALS phenotypes such as locomotor dysfunction and increased lifespan in fly models of TDP-43 proteinopathy, consistent with a compensatory, neuroprotective mechanism in degenerating motor neurons.

To further probe changes in glycolysis and measure glucose uptake in *Drosophila* models of TDP-43 proteinopathy, a previously reported genetically encoded FRET-based sensor FLII12Pglu-700μδ6¹⁰ was expressed in motor neurons specifically using the UAS-GAL4 expression system. The FLII12Pglu-700μδ6 glucose sensor uses resonance energy transfer between two variants of green fluorescent protein, cyan and yellow fluorescent proteins (CFP and YFP) to detect glucose at the cellular level. It consists of a bacterial glucose binding domain from the *E. coli* MglB gene fused to CFP and YFP at opposite ends of the molecule. When bound to a glucose molecule, the sensor undergoes a conformational change bringing CFP and YFP closer together and allowing FRET to occur, which can then be used to quantify intracellular glucose levels^{10–12} (**Figure 1**). Here, we show how the FLII12Pglu-700μδ6 sensor can be used to determine changes in glucose uptake caused by TDP-43 proteinopathy in motor neurons. The experiments described here show that overexpression of an ALS-associated mutant, TDP-43, in motor neurons causes a significant increase in glucose uptake compared to controls. This approach can be used in other types of ALS (e.g., SOD1, C9orf72, etc.) and/or other cell types (e.g., glia, muscles) to determine changes in glucose uptake associated with neurodegeneration.

PROTOCOL:

The UAS FLII12Pglu-700 μ δ 6 transgenic flies were reported in Volkenhoff et al.¹⁰ and kindly provided by Dr. S. Schirmeier. The UAS TDP-43^{G298S} transgenic lines were kindly provided by Dr. T. Iwatsubo¹³. Recombinant *Drosophila* lines harboring both UAS FLII12Pglu-700 μ δ 6 and UAS TDP-43 transgenes were generated in the Zarnescu laboratory using standard genetic approaches and reported in Manzo et al.⁹. D42 GAL4 was used to drive the expression of the glucose sensor alone or together with TDP-43^{G298S} in motor neurons. All fly lines are maintained on molasses cornmeal media, at 25 °C in 12 h dark:light cycle.

1. *Drosophila* Ventral Nerve Cord (VNC) dissections

1.1. Make silicone elastomer dissection dishes.

1.1.1. Pour silicone elastomer components into a 50 mL tube as indicated in the manufacturer's protocol and stir well.

1.1.2. Fill 35 mm tissue culture dishes with approximately 2 mL of the elastomer mixture. Use a syringe to remove any bubbles. Cover the dishes and place them on a level surface in a 60 °C oven overnight to cure.

1.2. Dissect *Drosophila* larvae to expose the VNC while maintaining tissue viability.

1.2.1. Collect a wandering third instar larva, rinse with ddH₂O, and then place it in a drop of HL3-buffer (70 mM NaCl, 5 mM KCl, 20 mM MgCl₂, 10 mM NaHCO₃, 115 mM sucrose, 5 mM trehalose, 5 mM HEPES; pH 7.1) on an elastomer lined dish.

1.2.2. Using a pair of forceps (#5 or 55 forceps) under a dissecting microscope, pin the anterior and posterior ends of the larva dorsal side up, carefully stretching the larva lengthwise with insect pins (Minutein Pins).

1.2.3. Make an incision just above the posterior pin using a pair of angled iris scissors. Make a vertical cut starting from the incision toward the anterior end of the larva.

1.2.4. Add a few drops of HL-3 buffer if needed. Remove the trachea and the rest of the floating organs without disturbing the CNS. Pin the flaps stretching the body wall to expose the CNS while keeping the neuromuscular system (VNCs, axons, and neuromuscular junctions) intact.

2. Image acquisition

2.1. Optimize the imaging parameters.

2.1.1. Turn on the microscope and lasers before starting dissections. Images must be acquired using an upright confocal microscope with a 40x water immersion lens. Use a 405 nm laser to

excite CFP and acquire the images in both the CFP (465–499 nm) and the FRET (535–695 nm) detection channels.

2.1.2. Optimize acquisition parameters such as scan speed (6), average (2), objective (40x), zoom (1x), pinhole size (1 AU), and spatial resolution (512 x 512). Adjust the gain such that the signal is in the optimal dynamic range. The same parameters must be used for all genotypes.

2.2. Image motor neurons within the VNC.

2.2.1. Place the silicone dish with the dissected sample under the lens. Lower the lens so that it comes in contact with trehalose-sucrose HL3 buffer (see 1.2.1). It is critical to ensure that the lens is completely submerged in the buffer. Add more buffer if required.

2.2.2. Use the CFP and FRET channels to manually select an optical section that consists of at least 6 motor neurons in focus, located along the VNC midline. The motor neurons are identified based on the expression of the glucose sensor and position along the anterior-posterior axis.

2.2.3. Acquire images every 10 s for 10 min. These images represent the baseline.

2.3. Stimulate with glucose supplemented HL-3.

2.3.1. Remove the trehalose-sucrose containing HL3-buffer using a Pasteur pipette and replace it with 5 mM glucose supplemented HL-3 (70 mM NaCl, 5 mM KCl, 20 mM MgCl₂, 10 mM NaHCO₃, 115 mM sucrose, 5 mM glucose, 5mM HEPES, pH 7.1). This step needs to be performed with great care, to avoid the movement of the VNC as much as possible.

2.3.2. Acquire images every 10 s for another 10 min. These images represent the stimulation phase.

2.4. Save the images as .czi files or any file type supported by the imaging software with a file name including date, genetic background, experimental condition (baseline or stimulation), and channels used.

2.5. Reuse the parameters to image all the genotypes (**Figure 2A**).

3. Image processing and ROI selection

3.1. Open the czi files in Fiji/ImageJ and set **Color Mode: Grayscale**, choose **View Stack with: Hyperstack**, and select **Split Channels into Separate Windows**.

3.2. Process images using the drift correction plugins: turboreg and stackreg. Each channel is corrected separately by selecting **Stackreg** under **Plugins**, and then choose **Transformation: Translation**.

3.3. Manually select the Regions of interest (ROIs) to extract the mean gray value of each channel.

3.3.1. Choose the ROIs by tracing all motor neurons that remain in focus over the entire time series. Use the ROI manager to save each motor neuron outline.

3.3.2. Use the **Multi-measure** function to measure the mean gray value in each ROI at each time point. Copy the ROIs traced from the first channel to the second channel for the pre-stimulation image.

3.3.3. Repeat this process for the post-stimulation images in each channel using the same cells/ROIs selected for the pre-stimulation image.

4. Data analysis

4.1. Calculate the FRET/CFP ratio, using the mean gray values for the FRET and CFP channels. Changes in the FRET/CFP ratios reflect alterations in the intracellular glucose concentration.

4.1.2. Plot FRET/CFP ratios for each ROI and time point versus time. Within every VNC some of the ROIs will exhibit a drop in FRET/CFP ratios following stimulation.

NOTE: This is interpreted as an inability of some neurons to uptake glucose, possibly due to stress caused by dissections and are therefore eliminated from the analysis. The remaining FRET/CFP ratios for each ROI and time point are averaged to generate a single FRET/CFP ratio per time point per genotype (glucose sensor alone and glucose sensor with TDP-43^{G298S}). These single FRET/CFP ratios are used for all subsequent normalizations. 31 ROIs were analyzed for Glucose Sensor controls and 24 ROIs were analyzed for TDP-43^{G298S}.

4.2. Baseline normalization: Calculate the average of FRET/CFP ratios for the first 10 min (baseline), and then normalize individual FRET/CFP ratios for each time point of the entire experiment to the 10 min baseline average (see **Figure 2B**).

4.3. Timepoint normalization: Normalize TDP-43^{G298S} FRET/CFP ratios to FRET/CFP ratios from glucose sensor alone at each time point (see **Figure 3A**).

4.4. Bar graphs: For baseline versus stimulation comparisons in the form of bar graphs, use FRET/CFP ratios from 5–10 min (baseline) and 15–20 min (stimulation) for each genotype. Normalize stimulation ratio to the baseline ratio (see **Figure 3B**).

5. Statistical analyses

5.1. Evaluate the normalized data sets using Mann-Whitney correction (for baseline and timepoint normalizations) or Kruskal-Wallis test (for bar graph representation of stimulation versus baseline FRET/CFP ratios).

REPRESENTATIVE RESULTS:

Image acquisition of the glucose sensor in the ventral nerve cord (VNC), *ex vivo*

To determine differences in glucose uptake in a *Drosophila* model of ALS based on TDP-43, a genetically encoded FRET-based glucose sensor was used. The sensor comprised CFP and YFP fused to the glucose binding domain from the *E. coli* *MglB* gene. Glucose binding elicits a conformational change, which can be detected by fluorescence resonance energy transfer (FRET) between the CFP and YFP^{10–12}. When glucose is not bound to the sensor, CFP excitation causes CFP emission only, and when glucose binds, the YFP signal can be detected due to FRET occurring between CFP and YFP (**Figure 1A**). The D42 GAL4 driver was used to express the sensor alone or together with the ALS-associated mutant TDP-43^{G298S} in motor neurons via the bipartite UAS-GAL4 expression system¹⁴. Third instar larvae were dissected in HL3 buffer without glucose and pinned to expose the neuromuscular system, including the VNC still connected to the neuromuscular junctions via motor neuron axons. The VNC was imaged using a 40x water immersion lens with a spatial resolution of 512 x 512 pixels (see Protocol and **Figure 1B**). CFP and FRET signals were acquired in the 465–499 nm and 535–695 nm, respectively, following CFP excitation with the 405 nm laser. The slice to be imaged was chosen based on the plane where the VNC was visible with a minimum of six motor neurons in focus along the midline. The selected plane was imaged for 10 min, capturing an image every 10 s to determine the baseline fluorescence. The czi files were saved as: genotype_sample#_baseline. After the 10 min time course was completed for baseline conditions, the buffer was replaced with glucose supplemented HL3. The image was refocused to find the same plane that was imaged under baseline conditions. The same image settings were used for all samples. The VNC was then imaged again for 10 min acquiring a new image every 10 s and saved as: genotype_sample#_post stimulation for further analyses.

Image analysis

A significant challenge with live imaging experiments is the drift that VNCs undergo during the 20 min imaging interval. To address this issue, a drift correction plugin, Stackreg was used in FIJI prior to image analysis and ROI selection (see Protocol and **Figure 2A**). 6–8 individual cells/ROIs were selected from each VNC and outlined using the FRET/YFP channel. Selections were copied to the CFP channel, and the mean gray values were measured using the multi-measure function. Quantifications were performed by first averaging the FRET/CFP ratios per time point, and then calculating the average for the entire 10 min per genotype. These averages were then used to normalize the FRET/CFP ratios at each time point and plotted over time to generate a first evaluation of the data (**Figure 2B**). Using this normalization approach, it was found that upon stimulation, control motor neurons expressing glucose sensor alone, exhibit a small but significant increase in glucose uptake (3.9%, $P_{\text{value}} < 0.0001$) while motor neurons expressing TDP-43^{G298S} show a significantly higher glucose uptake (16.76%, $P_{\text{value}} < 0.0001$). These data are consistent with TDP-43 proteinopathy causing increased glucose uptake in motor neurons, as previously shown in reference⁹.

Data analyses - measurement of glucose uptake in motor neurons in the *Drosophila* VNC

To gain further insights into differences between controls and TDP-43^{G298S} mutant motor neurons, each FRET/CFP ratio was normalized to the control at each time point (**Figure 3A**). This

allows for a comparison in glucose uptake between ALS motor neurons expressing TDP-43^{G298S} and control motor neurons expressing the glucose sensor alone in real-time. Under baseline conditions, there was no difference between the genotypes. However, upon stimulation with glucose, a rapid (7.31% after 1 min of glucose application) and significant increase (12.76% after 10 min, $P_{\text{value}} < 0.0001$) in glucose uptake was observed in TDP-43^{G298S} when compared to the control.

Bar graphs offer an alternative approach to illustrating differences between genotypes (TDP-43^{G298S} versus controls) before and after glucose stimulation (**Figure 3B**). This was done by normalizing the FRET/CFP ratio for both conditions to the baseline of the respective genotypes and plotting the average ratio for the last 5 min of baseline and stimulation imaging, respectively. Upon stimulation, neurons expressing glucose sensor alone show a small but significant increase in FRET/CFP ratio ($3.83\% \pm 0.08\%$, $P_{\text{value}} < 0.0001$) compared to the baseline. Whereas neurons expressing TDP-43^{G298S} showed a significant increase in FRET/CFP ratio upon stimulation ($14.73\% \pm 0.08\%$, $P_{\text{value}} < 0.0001$) when compared to the baseline. The net difference in FRET/CFP ratios between motor neurons expressing TDP-43^{G298S} and glucose sensor alone is 10.9% ($P_{\text{value}} = 0.005$). This analysis also shows that the ratios stabilize around the last 5 min of each time-course imaging, so this time frame was chosen for the graph. This analysis provides a high-level overview of the results, including statistically significant differences between genotypes and treatments in one graph.

FIGURE LEGENDS:

Figure 1: FRET sensor and image acquisition. (A) FRET-based Glucose sensor diagram used to measure glucose uptake in motor neurons. Glucose binding causes FRET to occur. (B) Diagram of neuromuscular junction (NMJ) dissection showing area imaged in the VNC. Images to the left showing TDP-43^{G298S} before and after glucose stimulation in both FRET (YFP) and CFP channels. Scale bars: 20 μm . Magnification: 40x.

Figure 2: Image analysis of glucose sensor in the context of TDP-43 mutant. (A) Representative images of FRET and CFP signals in glucose sensor controls and TDP-43^{G298S} samples under baseline and stimulation conditions. A representative motor neuron is outlined in each image as an example of an ROI. Scale bars: 20 μm . Magnification: 40x. (B) The average ratios of FRET/CFP in glucose sensor and TDP-43 mutant motor neurons over 20 min of imaging. Ratios were normalized to the average baseline ratio for each genotype (see baseline normalization in the Protocol). Values shown are the average of 25–30 motor neurons (ROI) from 5 VNCs per genotype. Mann-Whitney was used to evaluate statistical significance. *** = $P_{\text{value}} < 0.001$.

Figure 3: Data analysis of glucose sensor in the context of TDP-43^{G298S}. (A) FRET/CFP ratios of TDP-43^{G298S} are normalized to Glucose Sensor control at each time point. Mann-Whitney was used to evaluate statistical significance. **** = $P_{\text{value}} < 0.0001$. (B) Bar graph representation of glucose uptake in Glucose Sensor control and TDP-43^{G298S} shows a significant increase in glucose uptake in control motor neurons upon stimulation and in the context of TDP-43^{G298S} compared to controls. Kruskal-Wallis was used to evaluate statistical significance. ** = $P_{\text{value}} < 0.01$, **** = $P_{\text{value}} < 0.0001$.

DISCUSSION:

The technique described in detail here can be applied to measure glucose uptake in a specific cell type of interest in live *Drosophila* using FLII12Pglu-700 μ δ 6, a FRET based sensor which can detect changes in glucose levels to a millimolar range¹⁰⁻¹². This sensor has been previously used in conjunction with the UAS-GAL4 system to target its expression to specific cell types, including neurons^{9,10}. In this study, D42 GAL4 was used to express FLII12Pglu-700 μ δ 6 on its own or together with disease associated TDP-43^{G298S} to demonstrate how this approach can be used to evaluate glucose uptake in ALS motor neurons. Furthermore, this method can be applied broadly to image a multitude of fluorescent sensors in the larval VNC.

Critical steps in the protocol include maximizing the signal-to-noise ratio. To this end, image acquisition parameters were set such that the fluorescence is not oversaturated, and the full range of signal intensity can be quantified. Imaging parameters such as gain, scanning speed, pinhole size, and zoom remained unchanged throughout the study. The experiments were performed over several days; however, in each experiment both the genotypes, i.e., controls and TDP-43^{G298S} were imaged together to account for variability. Imaging *Drosophila* larval CNS using a water immersion lens could give rise to optic plane changes over time. Care should be taken to avoid drastic changes in optic plane by using sufficient buffer. Samples with changes in focus were discarded.

Although the conditions and parameters are maintained unchanged throughout the experiments, this technique requires a change in buffer during imaging. After 10 min of imaging the glucose free buffer must be replaced with glucose supplemented HL-3 buffer, which might change the optic focal plane. The lens must be re-focused to the same focal plane so that the same set of cells are imaged before and after glucose supplementation. A subset of motor neurons exhibited a drop in FRET/CFP ratios following stimulation. This indicates that some neurons do not uptake glucose, possibly due to stress caused by dissection and were eliminated from the analysis.

ROI selection, image processing and quantification were performed using Fiji/ImageJ. While ROI is selected manually in the first image of the series, it is critical to correct minor drift in time lapse imaging to keep ROI invariable throughout the imaging series. An open-sourced drift correction plugin, Stackreg, was used to account for this issue.

Availability of the right excitation laser is a major limitation to this technique. Although 436 nm excitation laser is ideal for this glucose sensor, we have shown that the sensor can be used with the 405 nm excitation laser, which is more widely available. Another limitation to this technique is that it can be used to measure glucose dynamics but not absolute glucose concentrations. A potential alternative strategy to measure absolute glucose levels is iGlucoSnFR-TS, a lifetime glucose sensor, which can be calibrated to measure absolute glucose concentrations¹⁵.

Glucose is a major source of energy in the brain and is required for physiological functions. Defects in glucose metabolism has been associated with several pathological conditions reviewed

in¹⁶. *Drosophila* is a powerful genetic model used to study neurodegenerative disorders¹⁷. However, there are limited techniques available to directly measure glucose levels in *Drosophila*. This FRET-based glucose sensor provides a direct measure of intracellular changes in glucose levels. Despite some experimental challenges and limitations this sensor can be successfully used to study glucose dynamics in specific cell types (e.g., motor neurons, glia, muscles) in various disease models, including multiple types of ALS and related neurodegenerative disorders.

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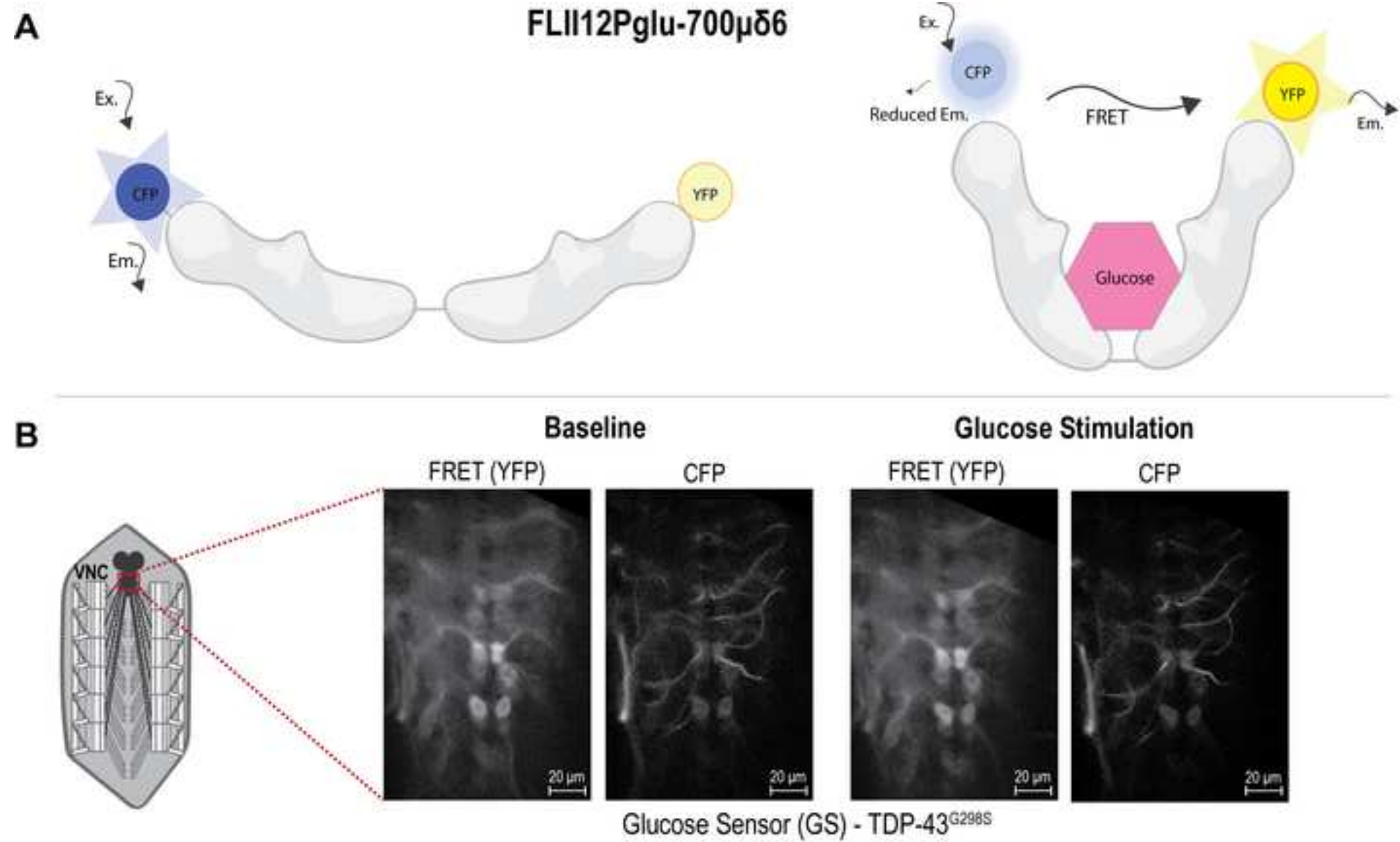
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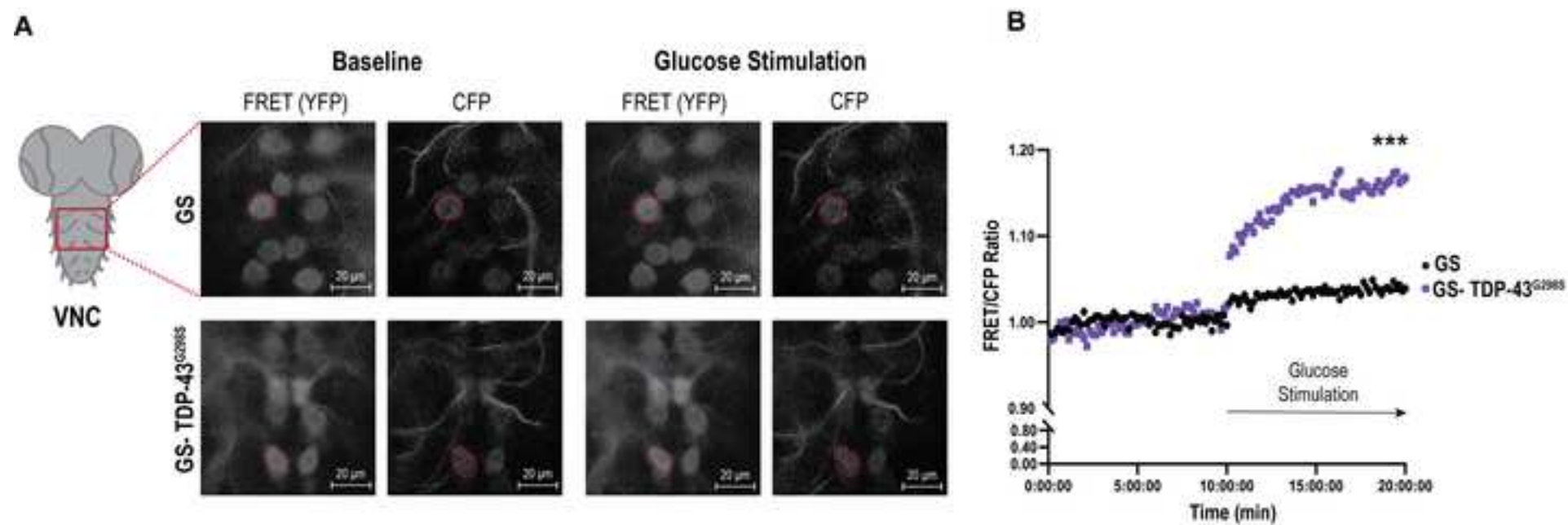
The authors declare no conflicts of interest.

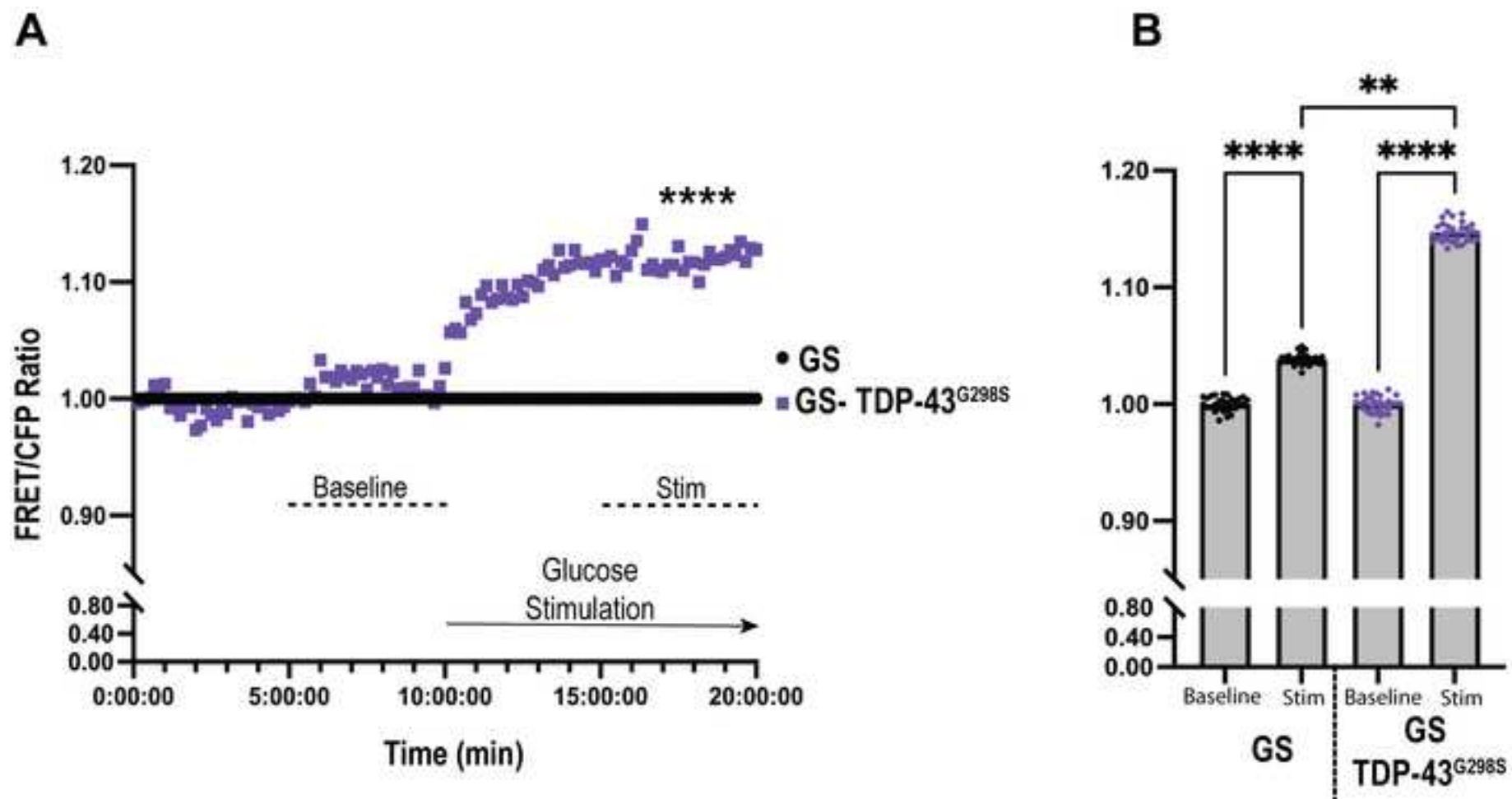
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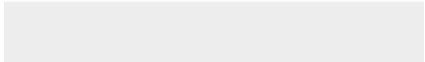






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Thank you for the opportunity to revise and resubmit our manuscript. We appreciate both the editorial and the reviewers' comments, which are addressed below, point by point.

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The manuscript has been carefully proofread for spelling and grammar.

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3. Please revise the following lines to avoid previously published work: 44-46, 123-124, 155-156.

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9. Line 91-97: Please add the lines as "NOTE" instead of a protocol step.

The text was edited as instructed.

10. Line 159-166/175-177: Please ensure that the Protocol section consists of numbered steps. We cannot have non-numbered paragraphs/steps/headings/subheadings.

The text was edited as instructed.

11. Please include a one-line space between each protocol step and then highlight up to 3 pages of the Protocol (including headings and spacing) that identifies the essential steps of the protocol for the video, i.e., the steps that should be visualized to tell the most cohesive story of the Protocol. Remember that non-highlighted Protocol steps will remain in the manuscript, and therefore will still be available to the reader.

The text was edited as instructed. Essential steps are highlighted in yellow.

12. Please do not use the &-sign or the word “and” when listing authors in the references. Authors should be listed as last name author 1, initials author 1, last name author 2, initials author 2, etc. Title case and italicize journal titles and book titles. Do not use any abbreviations. Article titles should start with a capital letter and end with a period and should appear exactly as they were published in the original work, without any abbreviations or truncations.

The references were formatted using JOVE output style in Endnote.

13. Figure 1: Please include scale bars in all the images of the panel. Please define the magnification used in the figure legends.

Scale bars and information on magnification used were added as instructed.

14. Figure 2: Please include scale bars in all the images of the panel. Please define the magnification used in the figure legends. Please revise the X-axis label to “Time (min)” instead of “Time (minutes)”

Scale bars and information on magnification used were added as instructed. Labels were also edited as instructed.

15. Figure 3: Please revise the X-axis label to “Time (min)” instead of “Time (minutes)”

Labels were also edited as instructed.

16. Please revise the table of the essential supplies, reagents, and equipment. The table should include the name, company, and catalog number of all relevant materials in separate columns in an xls/xlsx file. Please sort the Materials Table alphabetically by the name of the material. Please remove trademark (™) and registered (®) symbols from the Table of Equipment and Materials.

The text was edited as instructed.

Reviewer #1:

1. The authors should write the full form of any abbreviations whenever used for the first time (e.g. PFK in the abstract).

The text was edited as instructed.

2. Did you use your glucose sensor system in WT TDP-43 expressing flies? If so, a statement about the outcome in the discussion would be great.

In this study, we focused only on TDP-43 mutant expressing flies to demonstrate the technique. We used both WT and mutant TDP-43 WT expressing flies in a previous publication ¹ that we reference in this manuscript.

3. The authors should go through the manuscript and check for typos.

The manuscript has been carefully proofread for spelling and grammar.

Reviewer #2:

1. Latin terms (*Drosophila*, *E. coli*, ...) or gene names (*MglB*) are not italicized.

The text was edited as instructed.

2. When referring to laser wavelengths please insert "nm" after the numeric value

"nm" was added as instructed.

3. Use a unique and not multiple ways to type D42-Gal4 driver name

The text was edited as instructed. We are using D42 GAL4 throughout.

4. First reference in the manuscript to figure 2A appears only in "Representative Results" section, while in the previous section authors refer to figure 3 and others. Please explain or correct figure numbers or order in the text.

We made sure the figures are referenced in order in the text.

References cited:

- 1 Manzo, E. *et al.* Glycolysis upregulation is neuroprotective as a compensatory mechanism in ALS. *Elife*. 8, doi:10.7554/eLife.45114, (2019).
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Glucose Sensor only

	GS9							GS8	
Time	ROI 2	ROI 3	ROI 4	ROI 5	ROI 6	ROI 7	ROI 8	ROI 2	ROI 7
00:10	2.393284	2.633043	2.279613	2.304985	2.321914	2.306424	2.302523	2.663606	2.290333
00:20	2.379951	2.67459	2.308129	2.218476	2.435845	2.314364	2.255987	2.640079	2.362636
00:30	2.404449	2.665395	2.522416	2.158565	2.458005	2.446075	2.24698	2.719331	2.420089
00:40	2.459924	2.560892	2.477836	2.273414	2.387943	2.256739	2.275768	2.653512	2.333353
00:50	2.468528	2.680585	2.386452	2.151414	2.302981	2.249475	2.313034	2.636886	2.438132
01:00	2.464762	2.596288	2.2968	2.18088	2.333536	2.345894	2.249687	2.692372	2.413972
01:10	2.277965	2.49093	2.10935	2.159226	2.161418	2.693363	2.426314	2.711284	2.362675
01:20	2.447623	2.52014	2.343924	2.36327	2.621844	2.58214	2.354491	2.633267	2.362163
01:30	2.446619	2.636373	2.306914	2.336387	2.486091	2.436591	2.356297	2.674512	2.643004
01:40	2.410627	2.811809	2.491113	2.196573	2.491218	2.224001	2.271815	2.752509	2.396569
01:50	2.508018	2.663834	2.503614	2.08936	2.457816	2.210087	2.237003	2.774945	2.49283
02:00	2.384624	2.862313	2.42304	2.381111	2.517858	2.538575	2.258138	2.717772	2.493651
02:10	2.486555	2.776632	2.37374	2.315873	2.443635	2.342062	2.352813	2.741985	2.475454
02:20	2.552819	2.623386	2.344165	2.336908	2.491398	2.360289	2.16161	2.734196	2.335982
02:30	2.5013	2.793167	2.395526	2.39122	2.485517	2.348428	2.243057	2.735007	2.394535
02:40	2.451715	2.695864	2.418341	2.438114	2.607858	2.581801	2.278159	2.738829	2.412209
02:50	2.478818	2.774577	2.4293	2.372295	2.449615	2.415312	2.43194	2.685743	2.494825
03:00	2.387643	2.743642	2.347017	2.279608	2.512477	2.409844	2.248657	2.646348	2.53272
03:10	2.484789	2.831018	2.298494	2.443512	2.432117	2.423574	2.280792	2.646289	2.532856
03:20	2.367691	2.752081	2.586913	2.35356	2.516345	2.391216	2.20181	2.777458	2.45705
03:30	2.508081	2.836359	2.393555	2.405417	2.642229	2.472518	2.201022	2.763571	2.516556
03:40	2.476764	2.750262	2.38599	2.43602	2.565665	2.46381	2.372238	2.736356	2.44828
03:50	2.496581	2.660634	2.55252	2.448249	2.582325	2.596364	2.362966	2.557468	2.439482
04:00	2.370528	2.872242	2.404929	2.631781	2.616209	2.640321	2.169402	2.738619	2.50301
04:10	2.43877	2.755417	2.42869	2.533398	2.667949	2.558805	2.33926	2.724008	2.47152
04:20	2.479038	2.889111	2.428457	2.508311	2.653512	2.46594	2.265953	2.628102	2.447136
04:30	2.47319	2.709615	2.347301	2.450996	2.581467	2.419801	2.303999	2.656697	2.466855
04:40	2.422256	2.784491	2.568606	2.511163	2.615222	2.435775	2.312268	2.707176	2.499111
04:50	2.406458	2.899477	2.314768	2.620442	2.713219	2.684336	2.312361	2.661684	2.505524
05:00	2.377842	2.654489	2.31652	2.522438	2.599284	2.843388	2.27329	2.725497	2.554671
05:10	2.405365	2.752993	2.321426	2.525654	2.532177	2.604563	2.366644	2.697718	2.615486
05:20	2.347741	2.694044	2.350479	2.464135	2.665052	2.592419	2.182079	2.700238	2.538845
05:30	2.472957	2.761124	2.58135	2.507928	2.530276	2.681482	2.149199	2.702343	2.494809
05:40	2.438793	2.651354	2.421079	2.481772	2.389462	2.582395	2.199316	2.621082	2.497056
05:50	2.494847	2.688265	2.36171	2.374063	2.447883	2.490015	2.206664	2.743044	2.545858
06:00	2.509418	2.75298	2.276943	2.410436	2.577901	2.547232	2.076127	2.611102	2.530589
06:10	2.433442	2.603149	2.193013	2.309784	2.480749	2.641274	2.274423	2.811173	2.645955
06:20	2.406391	2.672545	2.31913	2.385769	2.601521	2.486631	2.156847	2.722092	2.653837
06:30	2.500744	2.686978	2.416297	2.364519	2.47191	2.546311	2.212269	2.679271	2.600291
06:40	2.459484	2.759963	2.331067	2.474678	2.50467	2.635336	2.133892	2.757103	2.573645
06:50	2.44249	2.64146	2.187649	2.455117	2.492071	2.643618	2.099884	2.732252	2.671243
07:00	2.442607	2.635595	2.262187	2.448219	2.537768	2.689746	2.141723	2.713232	2.533701
07:10	2.403675	2.830239	2.300816	2.434156	2.525602	2.684895	2.108537	2.748488	2.553422

07:20	2.427646	2.640389	2.192065	2.359056	2.395402	2.589538	2.153686	2.680594	2.537478
07:30	2.523979	2.50023	2.182162	2.633362	2.519039	2.852037	2.356312	2.743058	2.519171
07:40	2.465333	2.39413	2.326526	2.772566	2.57389	2.715143	2.356867	2.713862	2.583135
07:50	2.43042	2.410563	2.180673	2.585075	2.629054	2.951843	2.271389	2.648788	2.575459
08:00	2.455052	2.461725	2.219525	2.567435	2.667931	2.963444	2.339846	2.628485	2.578993
08:10	2.44427	2.539132	2.332053	2.61689	2.670128	2.860111	2.176501	2.730821	2.657286
08:20	2.505146	2.396186	2.259544	2.597103	2.502635	2.697062	2.259526	2.694097	2.627023
08:30	2.428323	2.486793	2.120137	2.477593	2.558894	2.87667	2.17998	2.653991	2.597078
08:40	2.525526	2.483296	2.233534	2.551339	2.63406	2.990117	2.302437	2.692986	2.412083
08:50	2.438305	2.509722	2.280202	2.519993	2.493019	2.784006	2.104567	2.566444	2.686502
09:00	2.554587	2.465588	2.247242	2.548854	2.583238	2.964475	2.238224	2.641406	2.600815
09:10	2.503136	2.343622	2.269461	2.537081	2.5739	2.80235	2.070591	2.716373	2.556548
09:20	2.599145	2.407314	2.187524	2.578898	2.60478	2.843795	2.096048	2.698714	2.672039
09:30	2.572962	2.492599	2.14668	2.627184	2.467415	3.019009	1.995585	2.7539	2.633931
09:40	2.634216	2.414672	2.173754	2.504814	2.719055	2.828799	2.044743	2.834416	2.539103
09:50	2.651417	2.451709	2.347511	2.553469	2.695987	2.894038	2.054958	2.744299	2.733864
10:00	2.644484	2.387998	2.147392	2.556	2.509947	2.869511	2.049431	2.657511	2.644594
10:10	2.532	2.66126	2.188501	2.53663	2.304991	2.935522	2.396675	2.592984	2.835784
10:20	2.443487	2.521417	2.097432	2.628612	2.438492	2.875396	2.460987	2.672865	2.894385
10:30	2.617772	2.574439	2.224208	2.626093	2.364746	2.906389	2.40675	2.812187	2.98743
10:40	2.502975	2.469224	2.157109	2.448312	2.240923	2.910905	2.519177	2.707934	2.957627
10:50	2.493959	2.443081	2.195281	2.508575	2.282924	2.839384	2.508791	2.794619	3.016895
11:00	2.539387	2.564784	2.106444	2.612601	2.330459	2.920528	2.510977	2.650731	3.029414
11:10	2.511755	2.561901	2.067165	2.722629	2.217838	2.896753	2.570451	2.731359	3.18126
11:20	2.492415	2.42741	2.140281	2.500392	2.235475	2.833069	2.513956	2.581073	2.940812
11:30	2.454698	2.512352	2.159749	2.577561	2.304256	2.778985	2.467984	2.626721	2.92696
11:40	2.551053	2.679424	2.063928	2.590717	2.272879	2.844649	2.529846	2.634038	3.066808
11:50	2.602284	2.581677	2.146044	2.706007	2.391322	2.802174	2.487491	2.733649	3.111629
12:00	2.461351	2.44877	2.105244	2.645505	2.264903	2.884472	2.484286	2.631283	3.095567
12:10	2.510638	2.489054	2.143084	2.529874	2.507094	2.857119	2.373918	2.618764	3.172324
12:20	2.546125	2.538507	2.164701	2.52849	2.356029	2.883356	2.5146	2.716606	3.01187
12:30	2.444841	2.682214	2.10937	2.701317	2.357309	2.754066	2.418344	2.693424	3.056209
12:40	2.684549	2.573108	2.083718	2.638216	2.268618	2.83738	2.436472	2.690333	3.121472
12:50	2.384632	2.554236	2.01821	2.724373	2.27891	2.838316	2.474806	2.783746	3.003938
13:00	2.677903	2.591498	2.12248	2.616361	2.296944	2.808473	2.544574	2.651864	2.987522
13:10	2.424417	2.60313	2.104208	2.64894	2.225867	2.873015	2.456117	2.628471	2.905516
13:20	2.437686	2.518297	2.159483	2.575431	2.376969	2.839308	2.487068	2.775434	3.097073
13:30	2.401823	2.558967	2.059507	2.828236	2.210151	2.829656	2.532472	2.617624	3.103014
13:40	2.341752	2.423807	2.093376	2.537648	2.356537	2.875356	2.434222	2.628252	3.028862
13:50	2.462641	2.592111	2.11705	2.643319	2.368227	2.822879	2.486569	2.832961	3.031343
14:00	2.498409	2.526574	1.921832	2.725257	2.217406	2.863742	2.400878	2.65713	3.002096
14:10	2.468643	2.523255	2.018134	2.668652	2.430714	2.753025	2.42785	2.656405	2.939783
14:20	2.454895	2.586429	1.976824	2.607573	2.31743	2.752635	2.437428	2.826441	3.214612
14:30	2.56319	2.466642	1.958143	2.828669	2.275474	2.947303	2.533342	2.701152	3.042284
14:40	2.439923	2.615768	2.100263	2.616669	2.350875	2.826569	2.426964	2.678201	3.066995
14:50	2.396989	2.569372	2.034157	2.619609	2.323321	2.953343	2.494689	2.621003	3.015702
15:00	2.621743	2.599952	2.181924	2.680511	2.240885	2.85236	2.439088	2.532448	3.066981

15:10	2.392268	2.47096	2.115753	2.849833	2.329375	2.783135	2.429041	2.394413	3.307724
15:20	2.482457	2.54095	2.135793	2.582838	2.239112	2.829763	2.401876	2.625306	3.188143
15:30	2.429658	2.532172	2.153981	2.807215	2.347067	2.958483	2.439544	2.595397	3.22685
15:40	2.547831	2.553138	2.103545	2.833648	2.286179	2.774174	2.349315	2.578501	3.07701
15:50	2.519358	2.525208	2.103275	2.618869	2.258551	2.826326	2.463993	2.543851	3.239234
16:00	2.455576	2.603053	2.189394	2.642925	2.250522	2.836547	2.458239	2.488835	3.114435
16:10	2.541495	2.476418	2.08676	2.67024	2.217922	2.902914	2.452902	2.553791	3.235901
16:20	2.43921	2.44417	2.042799	2.555068	2.141808	2.951506	2.441617	2.538212	3.183161
16:30	2.480259	2.641268	2.043808	2.626498	2.232482	2.837086	2.419104	2.504091	3.326649
16:40	2.504826	2.460204	2.04612	2.640647	2.332212	2.803042	2.536716	2.636392	3.098951
16:50	2.57059	2.507662	2.058071	2.658466	2.288104	2.838865	2.44892	2.654491	3.034366
17:00	2.494675	2.464863	2.068155	2.705376	2.252591	2.796966	2.469032	2.507062	3.25701
17:10	2.469839	2.461278	2.236596	2.773066	2.223073	2.819952	2.375218	2.700219	3.191709
17:20	2.560958	2.709344	2.067655	2.72135	2.29217	2.842121	2.393194	2.51258	3.204291
17:30	2.390335	2.600082	2.205376	2.600428	2.122574	2.792869	2.339087	2.559779	3.149601
17:40	2.588055	2.495339	2.174024	2.629739	2.167212	3.025193	2.465163	2.709123	3.242148
17:50	2.437351	2.709716	2.143747	2.567472	2.279683	2.808428	2.393555	2.646996	3.164286
18:00	2.594183	2.571794	2.137503	2.658241	2.308601	2.895699	2.379944	2.407796	3.027493
18:10	2.518584	2.701112	2.142494	2.670798	2.401463	2.966464	2.280032	2.649265	3.189296
18:20	2.497651	2.666652	2.205514	2.712929	2.102819	2.933538	2.246212	2.548793	3.250246
18:30	2.577938	2.589627	2.116117	2.701917	2.194379	2.856879	2.371779	2.483294	3.031394
18:40	2.490332	2.627143	2.100114	2.665519	2.241437	2.854012	2.343715	2.58341	3.178494
18:50	2.425638	2.582967	2.164072	2.657236	2.260499	2.846683	2.32227	2.577002	3.201547
19:00	2.501658	2.685008	2.172913	2.678911	2.371685	2.829506	2.359744	2.499334	3.122271
19:10	2.452039	2.67952	2.099135	2.608082	2.256244	2.814713	2.28672	2.520191	3.312599
19:20	2.513182	2.711594	2.163822	2.624906	2.209501	2.842897	2.35664	2.561751	3.137223
19:30	2.558278	2.616119	2.099062	2.586019	2.296242	2.88596	2.268695	2.435424	3.1025
19:40	2.446048	2.60623	2.128065	2.704737	2.236117	2.91938	2.330555	2.468936	3.121915
19:50	2.286786	2.559977	2.115731	2.531986	2.282943	2.82632	2.367572	2.616844	3.213594
20:00	2.569935	2.590351	2.189383	2.751604	2.209865	2.746846	2.29395	2.488353	3.161739

	GS7							EM1	
ROI 8	ROI 1	ROI 2	ROI 4	ROI 5	ROI 6	ROI 7	ROI 8	ROI 1	ROI 2
2.687319	2.847607	2.528021	2.618268	2.034378	2.141429	2.597584	2.322274	2.339861	2.399379
2.479026	2.795654	2.602658	2.510017	2.021703	1.990132	2.574157	2.285556	2.409583	2.477369
2.450105	2.801807	2.613779	2.643573	2.057124	2.0798	2.577496	2.340114	2.398418	2.507163
2.565514	2.690891	2.635414	2.446801	1.913402	2.151889	2.62949	2.37012	2.437517	2.460842
2.404273	2.763192	2.684907	2.584615	1.93482	2.039852	2.641598	2.341834	2.397485	2.406576
2.630036	2.743296	2.657617	2.61632	1.973061	1.978837	2.633366	2.331219	2.436279	2.42656
2.564485	2.905806	2.629386	2.566122	2.054898	1.973501	2.782636	2.312901	2.394221	2.498608
2.491543	2.932019	2.593321	2.617314	2.019523	1.968189	2.733622	2.408092	2.387746	2.337856
2.716658	2.900422	2.743354	2.631874	2.027747	2.035218	2.744782	2.289287	2.420445	2.380919
2.527798	2.966545	2.614111	2.618947	2.008858	2.000242	2.52968	2.367531	2.334871	2.454786
2.439866	2.866541	2.649562	2.7355	2.004334	2.00403	2.734965	2.353933	2.378977	2.44701
2.568272	2.936991	2.694348	2.689607	2.039646	1.958894	2.627127	2.453349	2.455565	2.424486
2.637333	2.848932	2.77272	2.639889	1.995177	1.978195	2.704566	2.338219	2.377144	2.277253
2.700551	2.914287	2.667596	2.649911	2.093814	1.964902	2.678031	2.342954	2.409819	2.390446
2.759672	2.888387	2.65539	2.532485	1.953824	2.024923	2.728294	2.249913	2.390004	2.46537
2.407685	2.865892	2.675309	2.714292	1.960358	1.922201	2.534474	2.384375	2.405297	2.392139
2.463291	2.851128	2.776158	2.726896	2.00128	1.958759	2.546294	2.389415	2.497314	2.471356
2.545714	2.865273	2.703763	2.757146	1.91049	1.977888	2.685647	2.361399	2.425655	2.564955
2.604306	2.853935	2.794646	2.584055	1.919319	1.874477	2.696143	2.452473	2.48526	2.340476
2.454357	2.840591	2.658244	2.633615	1.873325	1.97239	2.635878	2.452266	2.407937	2.608547
2.636278	2.808057	2.840543	2.669981	1.842658	1.863812	2.720104	2.341125	2.428145	2.478281
2.517989	2.911719	2.738476	2.714104	1.945795	1.930259	2.603169	2.476265	2.41269	2.60786
2.437581	2.811803	2.700638	2.793139	1.985008	1.972909	2.547525	2.387711	2.376935	2.529428
2.508794	2.880033	2.783372	2.557854	1.877648	1.961381	2.719232	2.371399	2.376973	2.343372
2.446615	2.975309	2.658993	2.558592	1.865842	1.931031	2.614504	2.459923	2.406783	2.45998
2.643035	2.855463	2.716221	2.643123	1.809368	1.884822	2.585704	2.393835	2.374517	2.503432
2.509677	2.720075	2.604477	2.693407	1.863768	1.886561	2.705978	2.434647	2.331449	2.514144
2.792556	2.922141	2.792471	2.686885	1.89603	1.844529	2.600922	2.362814	2.374028	2.578689
2.496135	2.85436	2.735434	2.567116	1.854379	1.807577	2.67983	2.411843	2.451794	2.458692
2.670672	2.802473	2.629272	2.531807	1.899734	1.865604	2.645397	2.43375	2.31306	2.490726
2.749639	2.879507	2.570317	2.598977	1.894977	1.807528	2.649323	2.378522	2.415389	2.53879
2.532953	2.843951	2.707948	2.703105	1.829405	1.760306	2.654991	2.385797	2.410162	2.458662
2.808402	2.871356	2.666958	2.553198	1.774033	1.845984	2.614318	2.449874	2.343832	2.37379
2.785348	2.84226	2.692252	2.629057	1.842026	1.857943	2.643518	2.534651	2.289436	2.409318
2.398828	2.958171	2.715097	2.59739	1.885876	1.899205	2.710387	2.382995	2.381237	2.510574
2.515407	2.785111	2.698527	2.616952	1.823711	1.806654	2.678355	2.324992	2.341395	2.286446
2.45145	2.976209	2.741362	2.718102	1.89719	1.794455	2.636764	2.336693	2.333275	2.490425
2.54525	2.957021	2.67521	2.618331	1.834015	1.72438	2.592274	2.342966	2.339234	2.476222
2.624088	2.954706	2.711039	2.592668	1.927653	1.78359	2.6272	2.387958	2.281287	2.359731
2.488571	2.922076	2.633254	2.698621	1.746781	1.764185	2.62846	2.402839	2.364541	2.512464
2.481257	2.828229	2.570281	2.6135	1.731243	1.693914	2.575085	2.360468	2.283815	2.458041
2.475342	2.976277	2.651205	2.763019	1.824264	1.838036	2.61805	2.320031	2.321641	2.488956
2.541385	3.059722	2.659706	2.562441	1.801076	1.798821	2.631033	2.365123	2.315911	2.433677

2.746401	3.061308	2.692806	2.677964	1.781596	1.692055	2.668588	2.369287	2.347378	2.390469
2.612055	3.066211	2.679744	2.751003	1.888978	1.732073	2.745255	2.358451	2.335614	2.407629
2.721635	2.927376	2.583646	2.689087	1.784199	1.659002	2.690701	2.447374	2.248867	2.467139
2.775239	2.976841	2.731135	2.582856	1.783185	1.657712	2.674747	2.439744	2.360344	2.562715
2.600937	2.917549	2.718804	2.57446	1.861316	1.605937	2.672589	2.392451	2.303917	2.449257
2.492054	2.915633	2.638295	2.821002	1.73078	1.681565	2.667635	2.472421	2.313252	2.42424
2.782637	3.014739	2.657093	2.630806	1.796352	1.707006	2.663845	2.407705	2.366559	2.485731
2.869755	2.997678	2.699434	2.716305	1.707748	1.551621	2.608641	2.396623	2.350193	2.479028
2.724508	2.878984	2.577677	2.787809	1.785533	1.638905	2.703422	2.440975	2.328997	2.602702
2.702492	3.033942	2.790034	2.716187	1.860864	1.58955	2.658261	2.511996	2.290108	2.551697
2.751054	3.106732	2.692771	2.565445	1.73737	1.616454	2.637333	2.507166	2.286167	2.576153
2.732596	2.908342	2.722431	2.666088	1.775193	1.63077	2.615218	2.40912	2.322692	2.361188
2.816182	3.035938	2.7433	2.741694	1.786624	1.591627	2.695775	2.452647	2.383145	2.553893
2.762415	3.125622	2.755894	2.860912	1.783412	1.530979	2.61623	2.364643	2.397197	2.463412
2.747526	3.149009	2.600729	2.715457	1.820593	1.604791	2.681107	2.24068	2.27431	2.406923
2.707766	3.166304	2.719172	2.632595	1.783975	1.619903	2.678007	2.411552	2.324477	2.389639
2.784816	3.006339	2.730756	2.74952	1.788997	1.62512	2.698001	2.441563	2.25658	2.336806
2.510227	3.083358	2.118175	2.181484	2.56951	2.613347	2.561232	2.172204	2.47499	2.324848
2.68372	2.974133	2.073739	2.058349	2.716388	2.593348	2.50836	2.22543	2.344956	2.472067
2.566821	2.851491	2.041096	2.05558	2.596308	2.588222	2.542572	2.25495	2.369517	2.418071
2.724472	2.820719	2.020368	2.070737	2.435742	2.591069	2.620874	2.177561	2.366897	2.426395
2.677814	2.850888	1.999871	2.128073	2.563793	2.523186	2.48253	2.207015	2.331125	2.37477
2.511981	2.84844	2.068302	2.107761	2.513835	2.616185	2.664019	2.236411	2.375668	2.355711
2.55534	2.789237	1.994844	2.057527	2.462211	2.518588	2.561663	2.230647	2.297233	2.372437
2.786695	2.78033	2.067446	1.969981	2.38882	2.568386	2.465796	2.177451	2.31299	2.35071
2.56307	2.698417	1.991544	2.047178	2.430424	2.557148	2.65943	2.275593	2.404106	2.47814
2.775777	2.84151	1.966411	1.938377	2.51304	2.486984	2.673723	2.231687	2.361605	2.475767
2.537747	2.766452	1.936419	1.97814	2.501886	2.493049	2.577575	2.070702	2.406174	2.553636
2.571928	2.844052	1.972306	1.936525	2.607865	2.465245	2.646633	2.167277	2.382184	2.429402
2.682095	2.822334	1.927714	2.02369	2.547563	2.469668	2.513997	2.26667	2.315642	2.479116
2.654106	2.732952	1.881823	1.951359	2.522194	2.553529	2.625572	2.174784	2.309151	2.556364
2.645525	2.819487	1.937928	1.970949	2.543077	2.510171	2.499309	2.273131	2.375724	2.41492
2.69908	2.824081	1.893101	1.980615	2.615254	2.573499	2.53298	2.191495	2.372394	2.359884
2.566825	2.898021	1.920676	1.990974	2.40793	2.428705	2.58267	2.2302	2.365854	2.507824
2.807014	2.870119	1.96132	1.980605	2.552002	2.546746	2.52725	2.202209	2.434902	2.346813
2.792965	2.850338	1.932336	2.033117	2.444661	2.548619	2.687441	2.31317	2.36088	2.527588
2.734649	2.87262	1.952451	1.925598	2.452342	2.494819	2.493423	2.170798	2.343764	2.414731
2.727389	2.869303	1.999912	1.933688	2.548003	2.540705	2.524624	2.287609	2.346088	2.487788
2.781065	2.78086	1.971147	2.037627	2.402988	2.652422	2.553821	2.126103	2.32414	2.392137
2.802368	2.815994	1.94238	2.019221	2.589119	2.562137	2.496794	2.294758	2.353079	2.424017
2.598822	2.856305	1.933491	1.923451	2.627326	2.558503	2.611399	2.301037	2.407941	2.432871
2.637255	2.806386	1.902399	2.055237	2.409295	2.56762	2.612272	2.234584	2.300974	2.336325
2.498711	2.891668	2.035047	2.017571	2.444509	2.624954	2.595307	2.223032	2.31671	2.452993
2.678862	2.829953	2.007593	1.909827	2.626955	2.562733	2.516126	2.243571	2.282763	2.419581
2.695831	2.860502	2.005922	1.974249	2.469176	2.608722	2.548488	2.308123	2.390094	2.399524
2.72997	2.749118	1.915768	1.921167	2.586582	2.529006	2.592237	2.236724	2.328217	2.470839
2.582466	2.878508	1.931346	2.103496	2.51197	2.618934	2.513285	2.273124	2.388389	2.397244

2.613375	2.923467	2.015994	1.995217	2.602691	2.511473	2.585033	2.301978	2.327326	2.474433
2.473704	2.92146	1.924303	1.984842	2.510011	2.592788	2.672995	2.262748	2.270179	2.342665
2.674791	2.843702	1.93364	2.035451	2.528951	2.584213	2.591351	2.230729	2.348162	2.556211
2.468968	3.041748	1.950826	2.060601	2.567192	2.472958	2.445742	2.258814	2.340683	2.421202
2.832853	2.784785	1.969844	1.931878	2.647524	2.579808	2.514996	2.176055	2.332033	2.49733
2.708768	2.744484	1.953546	1.933008	2.613812	2.616716	2.563915	2.283177	2.319812	2.3908
2.512117	2.739483	1.937314	1.987872	2.621054	2.668338	2.629561	2.290813	2.274869	2.515313
2.603283	2.834557	1.900948	2.069067	2.560581	2.587264	2.55009	2.275127	2.278124	2.371622
2.734497	2.832786	1.958617	1.980438	2.70085	2.59035	2.514819	2.178707	2.296585	2.405779
2.595991	2.885143	1.918222	2.023408	2.647541	2.510187	2.494728	2.195046	2.298502	2.400344
2.732936	2.809258	1.964958	2.008976	2.564602	2.50074	2.544901	2.253737	2.381693	2.403739
2.593338	2.799768	1.932692	2.056895	2.604692	2.601612	2.553788	2.300497	2.36223	2.352136
2.673228	2.880472	1.981945	2.021067	2.564691	2.514599	2.485386	2.274507	2.317448	2.479649
2.539316	2.736689	1.923782	1.972709	2.500542	2.612513	2.560894	2.183083	2.289424	2.431209
2.668913	2.856184	1.965602	2.023041	2.660747	2.623475	2.609489	2.349454	2.287282	2.338205
2.561135	2.827516	1.983433	1.964512	2.633086	2.616439	2.635548	2.432042	2.30471	2.422644
2.58139	2.773567	1.975414	2.058304	2.685934	2.618882	2.541361	2.34224	2.300785	2.435321
2.601564	2.898498	1.939075	2.042361	2.635098	2.560857	2.573519	2.231478	2.36253	2.400523
2.500054	2.792564	1.950823	2.065925	2.71957	2.573677	2.587575	2.356543	2.271776	2.507011
2.638091	2.86167	1.860799	1.997097	2.524204	2.56482	2.777552	2.260067	2.259526	2.423804
2.598383	2.820978	1.930677	1.983651	2.516827	2.608304	2.753153	2.392271	2.361476	2.414152
2.513893	2.728364	1.900612	1.996538	2.541567	2.557591	2.551261	2.272143	2.352967	2.37447
2.743625	2.852791	1.963182	1.929871	2.659939	2.567256	2.604914	2.296556	2.346432	2.42477
2.634846	2.747728	1.956505	2.011328	2.708029	2.617187	2.460274	2.242039	2.328442	2.369377
2.550872	2.805947	1.956088	1.978947	2.625491	2.565621	2.564967	2.228248	2.293869	2.450845
2.842112	2.876069	1.865521	2.035806	2.604358	2.59182	2.710583	2.276382	2.329448	2.515769
2.501618	2.833334	1.963037	1.986434	2.529786	2.528365	2.715386	2.371225	2.294157	2.442106
2.618392	2.851713	1.999498	1.983351	2.61712	2.549815	2.673114	2.344223	2.309277	2.508314
2.573866	2.712865	1.974735	2.088736	2.514047	2.617912	2.636186	2.266959	2.381056	2.519705
2.662491	2.764753	1.824242	1.955057	2.60466	2.597115	2.673828	2.293534	2.427311	2.409849

EM2

ROI 3	ROI 4	ROI 5	ROI 6	ROI 7	ROI 1	ROI 2	ROI 3	ROI 4	ROI 5
2.797946	2.828917	2.660461	2.196741	1.91392	1.711788	2.111462	2.052203	2.220176	2.571417
2.860276	2.895337	2.796199	2.229076	1.869548	1.65961	2.154515	2.086312	2.280265	2.505449
2.736032	2.816315	2.599103	2.269978	1.845958	1.673621	2.143948	2.048424	2.254028	2.552002
2.828548	2.884234	2.74733	2.234928	1.947733	1.639052	2.137251	2.094619	2.221093	2.574397
3.039094	2.905075	2.692215	2.199626	1.8846	1.622163	2.128682	2.086469	2.256242	2.547802
3.054493	2.94479	2.718519	2.200714	1.914508	1.622581	2.109864	2.074186	2.260364	2.577146
2.887229	2.984234	2.656215	2.27005	1.891252	1.657048	2.134412	2.040929	2.216765	2.602933
2.945943	2.954825	2.602583	2.294407	1.822693	1.619765	2.09885	2.061766	2.302102	2.655971
2.760541	2.888084	2.682342	2.23998	1.879273	1.644676	2.126122	2.037414	2.284438	2.6429
3.049754	2.857143	2.70422	2.244036	1.856644	1.604714	2.100513	2.038711	2.44529	2.657916
2.905224	2.906586	2.579383	2.305283	1.868155	1.621411	2.114133	2.0172	2.31067	2.634981
2.95031	3.015605	2.621297	2.217119	1.918642	1.571401	2.106102	1.999691	2.286989	2.650075
2.916935	2.781562	2.623845	2.18242	1.867864	1.596519	2.117716	2.003958	2.2802	2.652954
2.935426	2.84058	2.743455	2.236842	1.839473	1.589612	2.108559	2.031022	2.328335	2.701646
2.900283	2.838488	2.705559	2.236827	1.93187	1.596675	2.067619	2.031905	2.314405	2.664051
2.940093	2.843983	2.741085	2.236781	1.838143	1.603514	2.104318	2.040093	2.446017	2.739265
2.917179	2.87329	2.721888	2.285235	1.908877	1.556911	2.118089	2.029821	2.267393	2.648954
3.161869	2.98862	2.706042	2.21032	1.846259	1.521675	2.103583	1.970225	2.290855	2.688033
2.827778	2.700657	2.590951	2.16829	1.806362	1.514118	2.076789	1.99779	2.290333	2.722904
2.878772	2.921735	2.675559	2.26342	1.895004	1.485965	2.131569	1.966145	2.356746	2.697888
2.843888	2.898136	2.595463	2.130541	1.905055	1.546758	2.054991	1.977665	2.26867	2.668558
2.884403	2.9426	2.679142	2.265745	1.895127	1.513602	2.086077	1.984011	2.343506	2.67613
3.025522	2.819477	2.63248	2.202801	1.849471	1.52614	2.112121	1.954449	2.284089	2.747591
2.974784	2.891179	2.546078	2.203797	1.839814	1.482772	2.067374	1.957828	2.272264	2.693275
2.704363	2.945806	2.593657	2.225812	1.859446	1.496145	2.033384	1.973164	2.371752	2.746734
2.951509	2.775715	2.678232	2.21435	1.868952	1.556653	2.039448	2.003254	2.316408	2.764368
2.864107	2.713862	2.577837	2.189345	1.817164	1.518411	2.028387	1.962266	2.278826	2.811877
2.929834	2.871028	2.665055	2.113451	1.779058	1.490556	2.052155	1.954425	2.420543	2.755643
2.861528	2.712888	2.70687	2.230649	1.907818	1.525815	2.098235	1.992979	2.237979	2.775518
2.96586	3.004718	2.549465	2.265917	1.830732	1.475252	2.045069	1.957522	2.320044	2.744095
2.852614	2.800387	2.604638	2.275984	1.876231	1.468897	2.067405	1.986762	2.326211	2.739772
3.011339	2.984322	2.611969	2.246958	1.819155	1.491316	1.987148	2.011656	2.314793	2.824533
2.891638	2.952015	2.718326	2.218274	1.864696	1.438012	2.006637	1.971687	2.294959	2.785582
2.942212	2.844063	2.594	2.192004	1.831453	1.460517	2.009936	1.970969	2.293609	2.757093
3.106453	2.926654	2.571241	2.205982	1.891696	1.460874	2.074199	1.996883	2.274206	2.769806
2.856558	2.754711	2.558189	2.229177	1.812965	1.423883	2.071935	2.00494	2.401889	2.721386
2.804738	2.872131	2.661365	2.228766	1.899512	1.443851	2.058314	1.957804	2.300151	2.745334
2.992605	2.90965	2.645461	2.290298	1.833333	1.411596	2.020414	1.951162	2.218028	2.781761
2.853865	2.834692	2.720876	2.250021	1.871289	1.412927	2.002966	2.007209	2.358738	2.787485
2.798525	2.852087	2.656312	2.216738	1.896483	1.403423	2.022562	1.95317	2.313648	2.760679
2.791451	2.868127	2.616068	2.207039	1.863066	1.407377	1.974033	2.013221	2.262428	2.759334
2.857566	2.759009	2.6	2.247522	1.823956	1.423341	2.013702	1.968289	2.378315	2.772596
2.780869	2.852851	2.59446	2.239129	1.856634	1.377641	1.941887	1.92374	2.33769	2.834118

2.912346	2.786296	2.59772	2.211106	1.882371	1.41148	2.0145	1.962668	2.358165	2.790001
2.898274	2.882536	2.589098	2.229557	1.90376	1.441572	2.012597	1.978104	2.306797	2.804758
2.813105	2.755608	2.596376	2.33611	1.887468	1.414023	1.9831	1.976031	2.311149	2.738541
2.857349	2.876481	2.548283	2.211059	1.928984	1.379401	1.96649	2.000676	2.438505	2.828823
2.899126	2.663012	2.63595	2.250147	1.852867	1.399711	1.963926	1.962739	2.281025	2.764986
2.835531	2.799869	2.58951	2.259464	1.923077	1.388136	1.952754	1.997688	2.340098	2.793494
3.066377	2.923372	2.525108	2.215935	1.880321	1.393307	1.92356	1.959096	2.350873	2.851926
3.022004	2.936605	2.633698	2.245112	1.853186	1.411903	1.892683	1.961134	2.427747	2.806698
2.90444	2.979937	2.529067	2.189375	1.908983	1.39576	1.987735	1.975102	2.425258	2.778349
2.806229	2.88786	2.599291	2.28138	1.876735	1.357131	1.974905	1.947108	2.313136	2.751689
2.908214	2.812621	2.54522	2.287089	1.851113	1.371049	1.946242	1.960133	2.302257	2.89397
2.865466	2.761378	2.540902	2.195168	1.909177	1.384789	1.939672	1.980318	2.31683	2.800302
2.936118	2.67291	2.596376	2.232464	1.885712	1.371264	1.920985	1.978763	2.234577	2.832386
2.923116	2.855919	2.586934	2.363252	1.941219	1.387171	1.943389	1.956778	2.355361	2.840152
2.793803	2.799305	2.657375	2.26091	1.935564	1.377453	1.948375	2.029636	2.356565	2.792858
2.959039	2.888377	2.637741	2.240095	1.860721	1.418218	1.832752	1.955965	2.330583	2.88681
2.845295	2.852394	2.571748	2.217754	1.892341	1.378601	1.951725	1.949756	2.3028	2.817491
2.778253	2.594773	2.600847	2.302954	1.985296	1.890268	2.507816	2.575024	2.35287	2.496935
2.919318	2.669625	2.535476	2.336983	2.002026	1.942708	2.458156	2.649735	2.27998	2.582294
2.84865	2.592083	2.571285	2.340331	1.915625	1.953053	2.476368	2.609247	2.326969	2.559704
2.7426	2.649628	2.567579	2.321555	2.035373	1.89311	2.518556	2.665333	2.314401	2.595255
2.859517	2.879946	2.534749	2.461312	1.976442	1.933515	2.55946	2.643749	2.316558	2.609496
2.879191	2.640672	2.600046	2.456894	1.985579	1.895795	2.547194	2.684094	2.372184	2.686277
2.834205	2.624863	2.588626	2.379785	1.979435	1.912853	2.523037	2.681467	2.282993	2.631826
2.927814	2.709132	2.59889	2.406484	1.95006	1.933367	2.468795	2.605686	2.272033	2.634656
2.944747	2.630479	2.464457	2.46664	2.061861	1.932028	2.542997	2.616307	2.353137	2.697334
2.927811	2.707439	2.559688	2.522118	2.008304	1.957081	2.568529	2.668198	2.371207	2.69277
2.821078	2.659444	2.603615	2.415116	2.059944	1.956987	2.550626	2.670999	2.322402	2.709104
2.969362	2.912702	2.61526	2.512323	2.065274	1.919941	2.563278	2.641286	2.33306	2.704592
2.838396	2.765531	2.548226	2.523822	2.043827	1.942066	2.550848	2.717093	2.331374	2.7343
2.799519	2.733849	2.646871	2.607777	2.132547	1.980097	2.540276	2.701953	2.383227	2.703158
2.877734	2.716615	2.751795	2.567272	1.964065	1.924994	2.511017	2.772576	2.287641	2.692242
3.002547	2.649484	2.67802	2.48119	2.046242	1.92642	2.558158	2.666294	2.256781	2.772546
2.854408	2.73175	2.67008	2.555414	2.060399	1.989809	2.552701	2.749441	2.375702	2.734479
2.908493	2.835553	2.60824	2.608367	2.03644	1.980333	2.539232	2.695617	2.315141	2.714083
2.817968	2.744191	2.648597	2.477081	2.032547	1.999265	2.54066	2.70714	2.329392	2.669782
2.992968	2.686521	2.733593	2.545279	2.053618	1.942836	2.511079	2.717688	2.344256	2.725788
2.910739	2.62957	2.673664	2.5714	2.104785	1.985381	2.552341	2.701049	2.348363	2.721855
2.901028	2.651477	2.672463	2.569709	2.026603	1.951847	2.508662	2.7787	2.387838	2.739379
2.97847	2.964625	2.599029	2.514591	2.076814	1.945346	2.541253	2.719975	2.33665	2.720972
3.137128	2.795263	2.659555	2.491924	2.10005	1.97109	2.528419	2.740965	2.430968	2.698208
2.934501	2.728538	2.564119	2.654187	2.118134	2.032899	2.581731	2.720429	2.371819	2.760752
3.10552	2.791812	2.580349	2.593419	2.051044	2.000631	2.531019	2.763874	2.344552	2.712481
2.937868	2.979459	2.706459	2.567853	2.005985	1.974548	2.545836	2.737123	2.277898	2.668763
2.929048	2.758002	2.675257	2.628221	2.087559	1.936921	2.639577	2.786827	2.308819	2.678649
2.785568	2.994867	2.593257	2.54464	2.075274	1.999394	2.546001	2.770622	2.368856	2.722418
2.923645	2.786621	2.710691	2.59335	2.081159	1.939572	2.582096	2.743771	2.416653	2.712911

3.05227	2.702548	2.665749	2.643847	2.099125	1.934227	2.55631	2.75687	2.369381	2.689149
2.917962	2.891498	2.684102	2.722169	2.153301	1.938801	2.547436	2.788665	2.395314	2.638611
2.947753	2.81404	2.572335	2.536396	2.111054	1.988473	2.552685	2.779789	2.37548	2.674567
2.9359	2.817408	2.673864	2.630594	2.082765	1.916935	2.606998	2.764204	2.436364	2.660615
2.884678	2.934375	2.691504	2.631456	2.167289	1.854044	2.589249	2.7954	2.354927	2.71145
2.976797	2.908993	2.742252	2.575519	2.056995	1.86788	2.572674	2.75955	2.403047	2.656665
2.902776	2.865591	2.606365	2.642546	2.122045	1.979664	2.563069	2.75439	2.382167	2.647581
2.926254	2.870992	2.582281	2.600122	2.047191	1.913273	2.546766	2.797845	2.35167	2.635328
2.923882	2.922496	2.78218	2.676637	2.097081	1.880574	2.564804	2.811678	2.366752	2.698188
2.974544	2.918386	2.595244	2.545309	2.174297	1.856319	2.563101	2.811259	2.4453	2.616706
3.067908	2.848767	2.638563	2.776239	2.151555	1.983011	2.583798	2.762176	2.399607	2.607791
2.905324	2.762961	2.537914	2.656535	2.135782	1.973608	2.570986	2.820315	2.438383	2.671576
2.955579	2.77925	2.5773	2.592037	2.137823	1.903952	2.634399	2.825132	2.402562	2.618426
2.961098	2.951639	2.736058	2.704521	2.198056	1.886668	2.58236	2.86198	2.373836	2.609312
2.996161	2.647519	2.473024	2.602995	2.074628	1.923182	2.561472	2.816409	2.387217	2.656294
3.018751	2.791234	2.542063	2.653018	2.198042	1.985068	2.572511	2.8245	2.447673	2.638548
2.992384	2.643272	2.664629	2.616464	2.113604	1.93174	2.669699	2.818971	2.447117	2.621732
2.914161	2.6718	2.654544	2.727173	2.077388	1.897157	2.597174	2.845417	2.397639	2.642924
3.028535	2.709768	2.626556	2.712716	2.184854	1.939314	2.637964	2.846976	2.478677	2.662766
3.003502	2.922336	2.683393	2.627456	2.064604	1.896683	2.615714	2.797084	2.517182	2.635176
2.951532	2.674073	2.636997	2.734849	2.228754	1.890122	2.619361	2.80996	2.452591	2.641977
2.974314	2.76238	2.642089	2.647563	2.044822	1.95704	2.578556	2.81656	2.455461	2.623549
2.866903	2.780905	2.705636	2.552863	2.11596	1.899333	2.609913	2.821914	2.407052	2.67202
2.882175	2.762757	2.796851	2.590963	2.243499	1.898371	2.671397	2.790737	2.501481	2.619752
2.962904	2.723926	2.659498	2.771675	2.113929	1.928856	2.594763	2.848441	2.504421	2.697267
3.108783	2.7054	2.722845	2.687917	2.122437	1.888727	2.718246	2.823521	2.415526	2.63823
2.93518	2.844079	2.641691	2.670575	2.197983	1.929625	2.709141	2.844531	2.442553	2.679229
3.043621	2.740031	2.651325	2.71629	2.174143	1.875749	2.632151	2.835606	2.459236	2.643891
2.991455	2.65246	2.594636	2.71143	2.140337	1.897419	2.681517	2.870201	2.481562	2.58351
3.023622	2.913898	2.639696	2.645145	1.9922	1.906343	2.700756	2.822465	2.425002	2.594303

G298S

G298S 2					
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ROI 6	ROI 7	ROI 1	ROI 2	ROI 3	ROI 4	ROI 5	ROI 6
2.715894	2.539189	2.419861	2.148893	2.27679	2.475441	2.226058	2.181549
2.752578	2.577617	2.369676	2.046626	2.400116	2.444738	2.164371	2.139796
2.798383	2.535333	2.329837	2.107632	2.44148	2.518078	2.160708	2.158529
2.828979	2.600192	2.349111	2.120061	2.382678	2.495292	2.316072	2.170506
2.751816	2.526045	2.406481	2.094882	2.391281	2.464093	2.090672	2.19919
2.733782	2.549257	2.4013	2.258971	2.328988	2.535134	2.238582	2.115028
2.771222	2.503579	2.461642	2.13128	2.378529	2.491843	2.195616	2.167206
2.730779	2.608901	2.309722	2.121285	2.413446	2.447792	2.234245	2.224659
2.819905	2.51595	2.415228	2.217593	2.376051	2.453363	2.289834	2.196367
2.847291	2.62961	2.435851	2.168146	2.403591	2.529926	2.278081	2.16574
2.756106	2.580812	2.428137	2.28672	2.347601	2.488643	2.167586	2.170168
2.888771	2.625508	2.362445	2.176802	2.369118	2.561004	2.17217	2.249546
2.838976	2.506147	2.419742	2.147486	2.328232	2.431999	2.110603	2.15772
2.780604	2.636579	2.413501	2.148896	2.378373	2.601376	2.161544	2.274489
2.760377	2.624086	2.386182	2.159687	2.336469	2.558803	2.193056	2.179045
2.859372	2.620355	2.42299	2.185421	2.32872	2.491517	2.196667	2.190605
2.784168	2.55838	2.396024	2.236676	2.276626	2.515762	2.100688	2.172121
2.802362	2.522067	2.407881	2.202656	2.220888	2.42849	2.196024	2.230325
2.797368	2.609	2.456144	2.170148	2.251001	2.577978	2.371307	2.162645
2.869869	2.664005	2.423967	2.099349	2.29182	2.461534	2.274973	2.267761
2.772465	2.645892	2.474008	2.223493	2.219422	2.570026	2.199097	2.193037
2.880438	2.568528	2.428742	2.267804	2.254318	2.523709	2.152384	2.26302
2.931393	2.580641	2.566685	2.273081	2.234872	2.492816	2.223816	2.26455
2.749751	2.651883	2.492509	2.195187	2.206656	2.476264	2.261382	2.238808
2.76681	2.63222	2.51212	2.259114	2.172081	2.515115	2.301999	2.188178
2.734251	2.65931	2.465623	2.188494	2.151852	2.445212	2.163733	2.276104
2.716957	2.622117	2.397919	2.221356	2.145562	2.447352	2.139595	2.228759
2.747408	2.590924	2.479355	2.296663	2.134123	2.562605	2.14266	2.271729
2.795563	2.697735	2.564762	2.28159	2.084821	2.510449	2.268217	2.264285
2.727325	2.582999	2.461467	2.363044	2.064143	2.508303	2.284769	2.256892
2.778091	2.71799	2.523704	2.318078	2.044257	2.500011	2.217656	2.226682
2.840689	2.719546	2.495275	2.3036	2.033928	2.459485	2.151677	2.254587
2.747601	2.740893	2.435202	2.278996	2.022709	2.4532	2.160653	2.222029
2.730382	2.710704	2.527734	2.304703	2.020303	2.496756	2.114304	2.215274
2.765192	2.724933	2.460612	2.284095	1.998631	2.434503	2.225317	2.279108
2.745676	2.740961	2.485918	2.30807	2.085953	2.488532	2.105543	2.208227
2.741226	2.639642	2.450416	2.375254	1.961576	2.449159	2.196288	2.237993
2.748925	2.764248	2.550975	2.318886	1.968186	2.536636	2.243802	2.235547
2.758277	2.669791	2.527409	2.38424	1.934298	2.435839	2.120534	2.197707
2.819437	2.680479	2.493714	2.37716	1.970305	2.493089	2.220469	2.239335
2.854279	2.70373	2.430157	2.321815	1.897565	2.478759	2.170177	2.189013
2.734658	2.669408	2.462293	2.334912	1.899281	2.496008	2.249744	2.169191
2.722845	2.661228	2.52025	2.210053	1.858002	2.419567	2.137168	2.250986

2.857442	2.649158	2.50859	2.374258	1.88287	2.508154	2.18362	2.232383
2.833843	2.653762	2.57901	2.340489	1.908116	2.485065	2.179366	2.248
2.776056	2.600839	2.551664	2.323949	1.926672	2.547041	2.219161	2.268066
2.762594	2.645067	2.447011	2.387674	1.857215	2.508128	2.155755	2.274053
2.747292	2.630147	2.517998	2.382759	1.895691	2.486526	2.177961	2.176489
2.832279	2.656045	2.540748	2.31128	1.843625	2.489968	2.168347	2.315068
2.776024	2.685559	2.59561	2.421425	1.902092	2.56896	2.172157	2.319139
2.766324	2.672226	2.486201	2.361689	1.824365	2.51303	2.111532	2.277692
2.830409	2.661638	2.602407	2.300747	1.840739	2.543172	2.177408	2.235171
2.823346	2.612652	2.452209	2.419447	1.805759	2.539834	2.210926	2.253884
2.783168	2.741749	2.493084	2.422793	1.787632	2.502989	2.12792	2.205463
2.745601	2.645296	2.549637	2.398184	1.799735	2.541155	2.12153	2.298768
2.777124	2.628275	2.503692	2.37502	1.785573	2.524773	2.11765	2.309352
2.818237	2.642604	2.487166	2.490846	1.722336	2.567966	2.071607	2.228712
2.770906	2.624226	2.521037	2.382574	1.779293	2.586726	2.065001	2.201715
2.745075	2.659608	2.519693	2.374758	1.809772	2.509253	2.141861	2.270897
2.832315	2.598937	2.515519	2.365922	1.770013	2.510457	2.1584	2.263963
2.920755	2.495845	2.40882	2.206845	2.38473	2.421561	2.190711	2.201569
2.864457	2.630378	2.491906	2.212903	2.426925	2.436937	2.284087	2.222848
2.872654	2.575045	2.367797	2.141293	2.409003	2.498681	2.347385	2.17414
2.920052	2.534451	2.491578	2.257863	2.366398	2.469883	2.215383	2.192918
2.953024	2.479679	2.443686	2.251666	2.487042	2.592429	2.40344	2.277482
2.951097	2.489241	2.442563	2.117942	2.371215	2.561313	2.343887	2.235957
2.934255	2.499951	2.355097	2.230441	2.470521	2.502351	2.333873	2.27518
2.976453	2.51706	2.522041	2.231215	2.35791	2.608083	2.320104	2.2129
2.963462	2.559827	2.542129	2.198256	2.409575	2.521901	2.376802	2.216961
2.863347	2.515517	2.500907	2.240558	2.427161	2.517191	2.405531	2.228974
2.946687	2.458427	2.466908	2.130259	2.462038	2.549429	2.35692	2.236723
2.895526	2.489152	2.431461	2.169791	2.501375	2.489538	2.322013	2.186597
2.826215	2.510916	2.419075	2.205974	2.383275	2.570377	2.358571	2.19806
2.912665	2.488782	2.453496	2.116177	2.468324	2.490124	2.429928	2.288918
2.913108	2.530912	2.479208	2.115063	2.508804	2.5557	2.279331	2.225136
2.871861	2.460051	2.472142	2.239521	2.403566	2.503574	2.283357	2.24506
2.894409	2.509399	2.53551	2.120541	2.337595	2.502908	2.40312	2.301391
2.88824	2.443941	2.419923	2.121159	2.393304	2.460961	2.360821	2.319448
2.951255	2.475555	2.48829	2.172995	2.531927	2.528556	2.391497	2.272502
2.910524	2.480652	2.507609	2.235566	2.44153	2.560866	2.351741	2.244318
2.89847	2.441581	2.45747	2.163227	2.371758	2.486086	2.254554	2.251101
2.853831	2.471932	2.410003	2.218604	2.400114	2.569842	2.435028	2.31851
2.82791	2.410726	2.469663	2.161564	2.402231	2.505744	2.36609	2.280215
2.914643	2.436701	2.438783	2.203472	2.387242	2.568706	2.451215	2.345911
2.881924	2.462255	2.477171	2.120439	2.267371	2.506432	2.345929	2.309065
2.902051	2.376415	2.440744	2.178366	2.374202	2.529739	2.316787	2.208379
2.923634	2.418263	2.473401	2.166398	2.254569	2.598275	2.406668	2.334805
2.876816	2.48062	2.438674	2.191223	2.399759	2.489423	2.354937	2.342904
2.807987	2.412391	2.410433	2.166566	2.381076	2.497589	2.291411	2.310183
2.843298	2.398727	2.501223	2.137536	2.35998	2.570876	2.255921	2.319039

2.896168	2.415433	2.391066	2.139504	2.34546	2.503148	2.335634	2.295439
2.840332	2.428643	2.407711	2.18954	2.343626	2.549862	2.408993	2.377276
2.891749	2.432531	2.563505	2.139063	2.299894	2.590539	2.185952	2.290717
2.86106	2.408913	2.551953	2.244171	2.43206	2.514484	2.23241	2.320435
2.744009	2.396697	2.437259	2.164123	2.312161	2.405887	2.32288	2.315456
2.850472	2.390584	2.410283	2.280672	2.283501	2.524065	2.302318	2.247209
2.847914	2.396572	2.421261	2.143952	2.31235	2.614764	2.349732	2.355223
2.84751	2.468467	2.425818	2.206288	2.362188	2.533482	2.247279	2.354359
2.907323	2.407161	2.375656	2.090283	2.269325	2.562616	2.221375	2.324017
2.846348	2.415586	2.447611	2.155174	2.284638	2.563103	2.336568	2.372093
2.853765	2.442763	2.399462	2.197064	2.361126	2.50268	2.250461	2.368839
2.935047	2.435732	2.389314	2.112017	2.348235	2.614076	2.326223	2.317389
2.888423	2.454108	2.393596	2.179083	2.284517	2.513634	2.248462	2.338477
2.902809	2.397908	2.43834	2.09539	2.238941	2.617389	2.298062	2.302421
3.004718	2.487173	2.337507	2.170528	2.294064	2.462686	2.363554	2.274387
2.887514	2.425481	2.438278	2.19616	2.286982	2.626173	2.352183	2.313498
2.886796	2.526829	2.484856	2.144556	2.322928	2.550841	2.242341	2.283154
2.951027	2.385359	2.41384	2.139551	2.263428	2.572431	2.220492	2.300761
2.918929	2.464912	2.452876	2.21319	2.25529	2.619102	2.218208	2.342347
2.909812	2.43809	2.476208	2.141098	2.245168	2.541285	2.262561	2.364081
2.834885	2.401504	2.419143	2.197873	2.174804	2.591298	2.292782	2.349077
2.941254	2.513927	2.436557	2.125554	2.250936	2.549404	2.360466	2.429512
2.942593	2.488353	2.445888	2.141896	2.189157	2.604991	2.267683	2.307232
2.868804	2.481148	2.481671	2.124205	2.168266	2.564622	2.237642	2.374192
2.845721	2.465644	2.479274	2.143854	2.281569	2.574862	2.161093	2.391912
2.848503	2.476238	2.46585	2.189833	2.156433	2.585019	2.269136	2.339798
2.882311	2.500982	2.476574	2.242794	2.195681	2.585004	2.277543	2.333627
2.94434	2.49336	2.437497	2.168334	2.172897	2.659464	2.233135	2.356826
2.958906	2.431697	2.367838	2.269915	2.130267	2.634119	2.322328	2.323117
2.98666	2.458155	2.488811	2.218618	2.176921	2.563076	2.208878	2.362132

G298S 8	G298S 7					EM 3			
ROI 7	ROI 1	ROI 3	ROI 4	ROI 5	ROI 6	ROI1	ROI2	ROI3	ROI4
2.092614	2.246053	2.70639	3.088527	3.082397	2.87428	2.238537	1.982956	2.398858	2.134523
2.093686	2.301321	2.703713	3.214172	3.041745	3.056021	2.306593	2.004674	2.33125	1.993644
2.088197	2.226367	2.666356	3.149683	3.047979	3.053419	2.290678	2.140599	2.353753	2.094337
2.24922	2.277592	2.855053	3.433576	3.22288	2.938498	2.321247	1.948258	2.408943	2.065402
2.176813	2.297201	2.773858	3.244853	3.190389	2.859104	2.170863	1.997353	2.384206	2.107008
2.215852	2.211346	2.870327	3.238087	3.198414	2.987838	2.222391	1.97965	2.383702	2.051656
2.077454	2.338097	2.598501	3.178936	3.137269	3.032237	2.140224	1.961798	2.232673	2.061172
2.130346	2.402258	2.824759	3.295465	3.144968	3.0827	2.223034	1.992566	2.302797	2.015697
2.229909	2.170689	2.740286	3.211254	3.182691	2.978097	2.128805	2.152193	2.243599	1.981392
2.186337	2.295197	2.827262	3.181833	3.242521	3.154569	2.182931	2.188957	2.203442	2.058139
2.189705	2.299495	2.78654	3.08489	3.362586	3.019414	2.191819	2.034531	2.094689	2.029493
2.183178	2.364858	2.880001	3.109132	3.261302	3.121428	2.052407	2.079233	2.081496	2.007697
2.143199	2.234869	2.860167	3.157666	3.154921	2.98725	2.056504	2.168891	2.092626	2.058726
2.206511	2.354016	2.89665	3.121904	3.180216	2.962822	2.11604	2.1205	2.120742	1.969597
2.202042	2.285528	2.773659	3.167709	3.119143	3.095061	2.076399	1.985653	2.321367	2.103823
2.210113	2.364421	2.842129	3.190589	3.074095	3.113309	2.114435	2.002484	2.212119	2.014466
2.132281	2.244377	2.842539	3.220924	3.126696	3.227907	2.136816	2.060531	2.310272	2.043129
2.096629	2.365664	2.745513	3.124855	3.143955	3.030839	2.076419	1.962096	2.131971	2.040298
2.165982	2.257937	2.77343	3.137454	3.082988	2.934703	2.260442	2.020849	2.362211	2.067841
2.20409	2.458592	2.843778	3.211448	3.040151	3.084648	2.107928	2.109713	2.421522	2.123528
2.231981	2.242973	2.909185	3.184823	3.036836	3.138487	2.083429	2.091838	2.16764	2.09221
2.133235	2.309154	2.794492	3.034367	3.065894	2.852546	2.041574	2.164479	2.231405	2.044667
2.256421	2.356	2.892355	3.133364	3.003293	2.894971	2.139522	2.084614	2.195331	2.044116
2.23704	2.415379	2.887951	3.037678	3.016504	3.122989	2.095636	2.057707	2.15153	2.05228
2.182683	2.308687	2.718098	3.133536	3.113115	3.194165	2.043105	2.198624	2.236068	2.092911
2.261485	2.329549	2.906246	3.066133	2.895588	3.170374	2.037746	2.135355	2.159318	2.038492
2.245769	2.302447	2.902491	3.092959	2.952527	2.977282	2.083464	2.097663	2.255976	2.069162
2.296372	2.361767	2.832016	3.198513	2.96783	2.997771	2.047423	2.156221	2.195487	2.11479
2.210397	2.336013	2.879407	3.183321	3.009378	3.062975	2.038523	2.266776	2.279238	2.10471
2.200624	2.405609	2.924574	3.122025	2.927971	3.069382	2.14689	2.108295	2.292159	2.039252
2.093883	2.3261	3.003212	3.185102	3.050446	3.148795	2.162028	2.092807	2.143712	2.118755
2.211427	2.251673	3.017174	3.308268	3.129715	3.197326	2.042644	2.195069	2.252745	2.017152
2.215751	2.505912	2.871338	3.114933	3.021078	3.202996	2.038442	2.3296	2.23212	2.108116
2.198495	2.324588	2.917643	3.075683	3.037813	3.291961	2.167005	2.206964	2.322345	2.095393
2.233152	2.333413	2.766712	3.0937	2.921489	3.206747	2.193139	2.188134	2.433549	2.025962
2.225188	2.454641	3.007009	3.224995	3.110804	3.179981	2.079041	2.238442	2.404606	2.089268
2.206723	2.5117	2.929126	3.206474	2.898813	3.1302	2.109404	2.189841	2.433338	2.126447
2.193443	2.26999	2.85945	3.308961	2.969728	3.235004	2.110176	2.156147	2.495166	2.112092
2.200298	2.557204	2.957566	3.309765	2.989997	3.164399	2.110488	2.213991	2.37236	2.024672
2.189437	2.490057	2.97683	3.116601	2.86991	3.159361	2.118365	2.353133	2.486042	2.093523
2.136081	2.323219	2.944039	3.179197	2.973112	3.166749	2.099955	2.091929	2.437143	2.052482
2.145049	2.553647	2.898065	3.26935	3.027516	3.255224	2.128672	2.112383	2.424528	2.157995
2.220379	2.463243	2.924735	3.249103	2.97969	3.318741	2.168578	2.190397	2.490947	2.108596

2.289432	2.401305	2.9318	3.157794	2.857921	3.353879	2.049772	2.257125	2.351973	2.162392
2.311673	2.527635	2.87144	3.203076	2.838582	3.137584	2.099828	2.267664	2.304314	2.144388
2.227302	2.464923	3.101652	3.304766	2.943225	3.35108	2.047606	2.376867	2.347115	2.158349
2.352829	2.331768	3.02293	3.270336	2.966879	3.228604	2.147371	2.262936	2.426228	2.129722
2.342115	2.444897	3.03903	3.234383	2.96019	3.390768	2.052163	2.304281	2.306924	2.122663
2.259707	2.523727	3.190612	3.245933	2.958954	3.281769	2.096531	2.380983	2.262963	2.139934
2.402482	2.447891	3.007048	3.218901	2.757466	3.545972	1.964677	2.370684	2.376968	2.189377
2.262348	2.459462	3.04078	3.257437	2.794659	3.388542	2.056428	2.421401	2.324645	2.123973
2.313946	2.487861	3.109588	3.279013	2.897034	3.410944	2.069202	2.352608	2.290243	2.092959
2.245614	2.432275	3.120753	3.223555	2.890607	3.387039	2.1546	2.378948	2.211417	2.110045
2.392084	2.52713	3.028987	3.125229	2.763192	3.471686	2.251006	2.429325	2.302116	2.17315
2.27742	2.447706	3.198239	3.238789	2.861352	3.307804	2.230129	2.26836	2.168727	2.053215
2.420135	2.352596	3.057885	3.268109	2.827237	3.379001	2.027954	2.447749	2.278816	2.075755
2.300697	2.50798	2.996983	3.290378	2.900557	3.389579	2.096382	2.542165	2.240403	2.029868
2.346844	2.368235	3.024633	3.128362	2.633142	3.321545	2.073377	2.365816	2.15124	2.207055
2.375466	2.34143	3.145872	3.356845	2.758733	3.547339	2.187272	2.323452	2.436082	2.137816
2.414273	2.442669	3.011085	3.464438	2.81183	3.322333	2.061521	2.43336	2.428012	2.10225
2.299441	2.683738	3.172603	3.232872	2.958031	2.921459	2.367772	2.35162	2.37737	2.490406
2.258514	2.535538	3.042292	3.34018	3.164446	2.929923	2.401983	2.422173	2.314465	2.483945
2.403457	2.461436	3.009937	3.224683	3.140695	2.9132	2.494768	2.475486	2.473077	2.46844
2.32072	2.750886	3.085812	3.320447	3.13013	2.944804	2.504661	2.587916	2.489896	2.437639
2.388394	2.642066	2.958988	3.173583	2.926365	2.768964	2.45873	2.48365	2.465455	2.446142
2.316145	2.740928	3.038578	3.235696	3.0314	2.858356	2.590403	2.522816	2.527498	2.50444
2.380228	2.685933	2.985355	3.32565	3.087266	2.942534	2.505148	2.500134	2.53856	2.495689
2.365227	2.667324	3.018524	3.259438	3.043532	2.92729	2.58433	2.449217	2.591206	2.497661
2.428212	2.676804	3.073145	2.965074	2.961622	2.969968	2.517359	2.565862	2.562457	2.442895
2.458109	2.581736	3.123544	3.311861	3.010554	2.785195	2.579236	2.532302	2.625066	2.516072
2.29122	2.755366	3.016358	3.290978	3.207189	2.813357	2.535388	2.544988	2.641071	2.478356
2.263334	2.751295	2.936871	3.309505	3.109688	2.805868	2.701979	2.499848	2.712133	2.37456
2.35214	2.796293	2.87371	3.167777	3.031166	2.666514	2.675646	2.490474	2.620698	2.366252
2.322619	2.89777	2.976407	3.195653	3.189426	2.699475	2.685572	2.620262	2.663641	2.466998
2.384155	2.868697	3.035149	3.17369	3.042711	2.877729	2.729321	2.556152	2.657299	2.222113
2.265977	2.8298	3.045942	3.207256	3.075765	2.793482	2.651626	2.594573	2.644773	2.468724
2.357733	2.970521	2.979765	3.322759	2.96378	2.794519	2.650851	2.564664	2.589772	2.498962
2.416227	2.775766	2.912468	3.322039	3.144443	2.833861	2.685653	2.518198	2.68216	2.480075
2.435186	2.956679	2.961446	3.257899	3.029767	2.735579	2.626079	2.551378	2.603326	2.582621
2.406594	2.923958	3.059728	3.159106	3.243269	2.677972	2.614857	2.540542	2.632495	2.54737
2.517485	2.899443	2.916999	3.384543	3.095732	2.792636	2.582408	2.493789	2.542293	2.681444
2.504059	3.006805	2.943939	3.475582	3.201801	2.811327	2.505429	2.537881	2.484555	2.580985
2.553324	2.988872	2.931473	3.347329	3.140555	2.732883	2.646087	2.550821	2.573132	2.58029
2.505653	2.897651	2.939424	3.482009	3.162979	2.892124	2.440405	2.507706	2.540181	2.68041
2.571398	3.069969	2.968	3.126223	3.072976	2.880151	2.472937	2.447655	2.633162	2.704932
2.531262	2.955256	3.014767	3.185243	3.111732	2.840037	2.578007	2.487821	2.578423	2.701003
2.470895	3.109999	2.947433	3.206579	3.255153	2.717135	2.564282	2.549397	2.591314	2.70083
2.568834	3.119885	3.013833	3.213014	3.013387	2.706459	2.526771	2.474915	2.634988	2.679362
2.532537	2.898216	2.99209	3.288694	2.97651	2.693236	2.523314	2.388889	2.653977	2.677287
2.589401	2.974791	2.994006	3.149405	3.090372	2.77124	2.566697	2.558887	2.493663	2.779749

2.61247	2.904252	3.027719	3.305172	3.161685	2.845645	2.482419	2.45033	2.533029	2.76885
2.536905	3.122191	2.97656	3.392265	3.040473	2.694208	2.512843	2.382582	2.666632	2.784401
2.54148	3.039421	2.888541	3.356575	2.95531	2.819007	2.517345	2.443002	2.581816	2.71769
2.584761	3.088841	3.027214	3.181562	3.01605	2.674683	2.438183	2.416502	2.488542	2.782856
2.596348	2.980439	2.989095	3.324548	2.803669	2.770975	2.540689	2.43016	2.626112	2.805032
2.588322	3.078557	2.883849	3.209023	3.168469	2.723269	2.602808	2.436248	2.616672	2.75495
2.567019	3.154966	3.033797	3.150245	3.105852	2.594568	2.46051	2.513951	2.638968	2.741473
2.533388	3.164588	3.05137	3.335076	3.049653	2.684875	2.485552	2.418591	2.642839	2.918831
2.565143	3.110209	2.895319	3.328969	3.065115	2.649416	2.555256	2.433925	2.642407	2.90844
2.451049	3.219781	2.840878	3.476869	3.106891	2.68335	2.474132	2.403587	2.675568	2.726894
2.523591	3.062091	2.834549	3.346091	2.982445	2.814915	2.508521	2.445292	2.635608	2.788231
2.535951	3.075649	2.864574	3.162166	3.004591	2.69909	2.465401	2.482553	2.593042	2.85512
2.582811	2.965005	2.934401	3.161574	3.232328	2.689507	2.457299	2.416431	2.741918	2.797734
2.454317	3.079731	2.851569	3.256866	3.158817	2.814806	2.573642	2.438827	2.612164	2.933461
2.595221	3.219068	2.881747	3.209215	2.978816	2.68407	2.430846	2.473046	2.755505	2.885246
2.480066	3.123897	3.012518	3.08632	3.189689	2.651079	2.488832	2.466407	2.663964	2.812397
2.414583	3.351488	2.980692	3.303861	3.112242	2.739237	2.52358	2.370016	2.714577	2.841986
2.604174	2.94273	2.848143	3.381771	3.095175	2.687646	2.383161	2.366624	2.718648	2.856723
2.547881	3.059251	2.958708	3.161612	3.126087	2.676489	2.444833	2.351711	2.710526	2.890759
2.634872	3.109887	2.928634	3.167683	3.116697	2.686085	2.579634	2.386818	2.803911	2.842763
2.636057	2.948197	2.930097	3.616416	3.149112	2.580444	2.478826	2.467452	2.750119	2.959871
2.50825	3.026822	2.823424	3.175322	3.144154	2.711829	2.463477	2.363058	2.773775	2.814982
2.566979	3.077787	2.92552	3.272522	3.04119	2.745915	2.521253	2.324035	2.826569	2.903984
2.48168	3.1061	2.982105	3.387624	3.275061	2.829761	2.542397	2.433938	2.723729	2.876223
2.534893	2.975703	2.958156	3.287153	3.19799	2.722484	2.419401	2.407773	2.864445	3.021855
2.53119	2.922438	3.022871	3.314092	3.236165	2.713299	2.351743	2.542157	2.852579	3.041469
2.569868	2.8708	3.006856	3.268103	3.202346	2.765679	2.43839	2.45495	2.754918	2.986234
2.564437	2.787164	2.856562	3.41891	3.311423	2.615034	2.469093	2.423144	2.84262	2.971418
2.623617	2.935361	2.871444	3.371456	3.219524	2.85948	2.420508	2.462182	2.874748	2.858733
2.497708	2.879011	2.880191	3.449651	3.376936	2.887599	2.402431	2.440745	2.88684	3.000159

EM4

ROI5	ROI6	ROI7	ROI1	ROI2	ROI3	ROI4	ROI5
2.315712	2.144901	2.417311	2.43095	2.5382	2.537569	2.178389	2.201422
2.230808	2.219974	2.367198	2.564762	2.496861	2.564312	2.195431	2.247561
2.331391	2.258659	2.383803	2.573177	2.567186	2.511874	2.235566	2.231402
2.213363	2.251456	2.38318	2.4868	2.528754	2.556176	2.206207	2.32973
2.230812	2.240729	2.356097	2.598399	2.658564	2.681296	2.2772	2.110348
2.267207	2.367621	2.381644	2.544659	2.585083	2.569224	2.281151	2.381984
2.237908	2.292689	2.425992	2.493613	2.325725	2.542577	2.043252	2.441095
2.165784	2.317457	2.353048	2.442407	2.410578	2.485772	2.162884	2.41476
2.155004	2.355698	2.372094	2.464531	2.375708	2.566414	2.171823	2.376969
2.176827	2.330678	2.350543	2.451392	2.410723	2.520778	2.119818	2.389382
2.112819	2.359848	2.238981	2.579533	2.387092	2.516913	2.178659	2.417357
2.158431	2.288136	2.290286	2.408225	2.346636	2.399765	2.126831	2.437671
2.030063	2.302936	2.190689	2.471888	2.363173	2.467019	2.12625	2.453326
2.170176	2.367237	2.463313	2.381872	2.446212	2.587465	2.148391	2.375254
2.236444	2.332284	2.554905	2.472301	2.305149	2.356409	2.129147	2.397171
2.304506	2.358019	2.528151	2.576173	2.234252	2.297992	2.075154	2.34806
2.217051	2.397542	2.473496	2.70898	2.632447	2.514208	2.423708	1.892906
2.163583	2.409743	2.514571	2.736141	2.598563	2.637504	2.291547	2.123024
2.240926	2.340899	2.510794	2.469537	2.536494	2.559829	2.220043	2.28355
2.232844	2.344184	2.527276	2.407425	2.470277	2.59875	2.144246	2.335075
2.320384	2.346828	2.508081	2.47586	2.480704	2.586557	2.247047	2.437624
2.233661	2.342072	2.547594	2.53414	2.393923	2.625646	2.320945	2.293665
2.244551	2.352125	2.58339	2.598789	2.493818	2.532309	2.264503	2.396762
2.241363	2.39676	2.517992	2.393606	2.49713	2.559294	2.204341	2.391542
2.202651	2.373541	2.565898	2.513692	2.42003	2.630299	2.205414	2.358327
2.210338	2.359969	2.463279	2.485357	2.500795	2.507528	2.304874	2.32215
2.219505	2.328417	2.554238	2.591364	2.409675	2.45074	2.292513	2.402088
2.131371	2.355106	2.556991	2.493226	2.500987	2.594412	2.266935	2.348318
2.192405	2.383524	2.64541	2.422781	2.373522	2.542246	2.18419	2.336739
2.135528	2.398211	2.638894	2.514252	2.424828	2.566344	2.184624	2.367856
2.199713	2.442749	2.682841	2.636858	2.446655	2.486614	2.273407	2.381681
2.22446	2.392238	2.609368	2.480423	2.460616	2.557803	2.235072	2.321787
2.173116	2.351057	2.57685	2.618602	2.435127	2.573515	2.243728	2.345573
2.290923	2.362459	2.697794	2.635703	2.525643	2.520537	2.217612	2.356464
2.271428	2.293334	2.74557	2.445712	2.455607	2.522415	2.383651	2.406223
2.287985	2.375146	2.73046	2.77531	2.417065	2.520022	2.374367	2.404819
2.342691	2.295153	2.765931	2.76532	2.636504	2.529315	2.357797	2.147425
2.379417	2.258778	2.72506	2.797865	2.557199	2.459152	2.312052	2.148573
2.376338	2.30332	2.823006	2.501909	2.465261	2.522826	2.420555	2.214901
2.419288	2.247222	2.812969	2.729189	2.531256	2.537341	2.388874	2.273389
2.30265	2.295842	2.70484	2.814812	2.571192	2.536314	2.258577	2.233258
2.343568	2.232948	2.752601	2.554716	2.463901	2.459481	2.336195	2.247547
2.213488	2.31104	2.844053	2.690358	2.594669	2.520363	2.430355	2.246002

2.201728	2.335492	2.747738	2.653249	2.545916	2.626022	2.310268	2.233909
2.306356	2.414946	2.716582	2.738826	2.520569	2.49802	2.459792	2.155074
2.281113	2.296387	2.746377	2.57454	2.531595	2.513841	2.32564	2.275074
2.382274	2.411005	2.782594	2.639348	2.56415	2.469489	2.378429	2.269276
2.354441	2.296152	2.915059	2.576582	2.479275	2.442589	2.294976	2.347314
2.243888	2.449309	2.650239	2.502305	2.334725	2.392796	2.273147	2.345885
2.232546	2.373154	2.802855	2.576814	2.414652	2.516515	2.323318	2.359955
2.240335	2.417811	2.743241	2.422487	2.356678	2.427587	2.205548	2.347349
2.185193	2.404641	2.708451	2.477171	2.403031	2.468308	2.154914	2.345499
2.207205	2.391065	2.776435	2.413011	2.437779	2.343244	2.124522	2.358237
2.307996	2.370115	2.731222	2.540837	2.308819	2.398455	2.214457	2.306245
2.241894	2.377869	2.776296	2.510764	2.421449	2.543333	2.174572	2.350904
2.250217	2.390348	2.618663	2.311658	2.433659	2.389121	2.15942	2.357301
2.219152	2.331325	2.86171	2.364815	2.309465	2.416333	2.212784	2.374354
2.166013	2.394766	2.856841	2.362082	2.278564	2.408659	2.152184	2.299733
2.357603	2.353204	2.962141	2.418471	2.229823	2.441819	2.14511	2.300652
2.418681	2.382839	3.01854	2.515533	2.283964	2.499031	2.064767	2.399977
2.263896	2.426685	2.610474	2.75787	3.668548	2.966374	2.842079	2.879765
2.401843	2.567224	2.639191	2.901786	3.712769	2.814432	2.762955	2.868431
2.323513	2.503389	2.812506	2.770969	3.527168	2.774622	2.827518	2.811668
2.348019	2.560357	2.823883	2.76305	3.648544	3.006036	2.811066	2.948505
2.337742	2.633944	2.760924	2.663638	3.647817	2.94771	2.917602	2.935295
2.336141	2.600447	3.015271	2.757101	3.620156	2.997657	2.818333	3.012511
2.444949	2.647105	3.01956	2.767545	3.563694	3.026421	2.867321	3.115543
2.381987	2.653704	3.061076	2.738542	3.710405	3.028369	2.722967	3.032959
2.292029	2.7253	3.217547	2.707591	3.665198	2.967107	2.701465	2.960774
2.353334	2.804613	3.021269	2.894166	3.837714	2.836812	2.757325	3.076919
2.36241	2.701577	3.177281	2.885212	3.617098	3.110253	2.871438	3.382896
2.263126	2.724698	3.175254	2.837507	3.697108	3.066829	2.718711	3.287749
2.298674	2.745249	3.363276	2.8401	3.676877	3.027816	2.762189	3.275065
2.27666	2.725494	3.159192	2.924085	3.915043	3.069654	2.897094	3.221034
2.110608	2.773533	3.109262	2.843177	3.544755	3.085971	2.879613	3.369711
2.357988	2.839174	3.311009	2.964256	3.875657	3.03802	2.924691	3.250094
2.336589	2.799548	3.278703	2.903127	3.474308	3.295986	2.856688	3.253468
2.442836	2.832771	3.269773	2.85239	3.817812	3.234651	2.713321	3.277136
2.499353	2.773764	3.390613	2.907847	3.862144	3.20527	2.691644	3.377592
2.47603	2.939922	3.349415	3.016443	3.750532	3.209897	2.841109	3.359864
2.601642	2.866493	3.444181	2.990214	3.600983	3.261851	2.824276	3.264945
2.58837	2.920168	3.386559	2.909972	3.750809	3.31838	2.853955	3.291896
2.531492	2.980416	3.577697	2.99458	3.788673	3.205421	2.719649	3.396872
2.551702	2.93955	3.343679	2.880963	3.764891	3.143569	2.893433	3.299686
2.579471	2.966904	3.520216	3.059447	3.939696	3.362435	2.895703	3.392407
2.611313	2.953081	3.485577	2.963316	3.837984	3.268799	2.907771	3.376981
2.600069	2.935832	3.553849	2.954325	3.783229	3.208307	2.827589	3.276007
2.610245	3.025243	3.633198	2.969331	3.743378	3.239125	2.814512	3.388789
2.641876	2.911417	3.539026	2.972744	3.612918	3.299545	2.764023	3.318748
2.581811	3.033403	3.518708	2.990402	3.751709	3.348325	2.950666	3.424191

2.6376	3.060676	3.408771	3.026951	3.868519	3.343444	2.840088	3.385424
2.680016	3.021399	3.571564	2.828414	3.782446	3.226059	2.874104	3.320388
2.650743	2.988494	3.521976	2.918191	3.686503	3.290068	2.931036	3.254172
2.73949	2.995731	3.483272	2.92339	3.783476	3.312802	2.719019	3.480817
2.701617	3.09047	3.539435	2.970482	3.822727	3.378148	2.738326	3.322526
2.763428	3.14221	3.53284	3.088413	3.686875	3.402565	2.928622	3.33527
2.778256	3.10752	3.561727	3.233828	3.919618	3.499846	2.894805	3.430615
2.739677	3.030035	3.70003	3.061417	3.599893	3.62571	3.06832	3.606786
2.718995	3.086327	3.459414	2.981061	3.726878	3.235168	2.703254	3.445547
2.687731	2.997407	3.532436	2.887041	3.467431	3.32525	2.790858	3.242388
2.745947	3.037449	3.667535	2.914654	3.636532	3.152219	2.902407	3.245655
2.855527	3.002168	3.534123	2.901996	3.617363	3.264043	2.669618	3.294037
2.821334	3.165593	3.606579	3.001287	3.621105	3.275986	2.822907	3.234881
2.712453	3.125244	3.623614	3.030663	3.680688	3.184913	2.790852	3.175444
2.779718	3.166051	3.77003	3.052053	3.572321	3.384701	2.876494	3.45588
2.87359	3.061536	3.549438	2.95717	3.904979	3.349439	2.720709	3.152192
2.846641	3.204483	3.650778	2.924229	3.646272	3.310992	2.628857	3.200443
2.905012	3.107981	3.608273	2.855695	3.691241	3.388533	2.669242	3.413689
2.799463	3.122232	3.609542	2.900324	3.624018	3.352269	2.642038	3.243884
2.84689	3.097617	3.828538	2.884578	3.470684	3.387519	2.667332	3.253156
2.821678	3.114134	3.595997	2.989995	3.67136	3.345111	2.791631	3.26572
2.851564	3.160748	3.626441	2.858109	3.722675	3.226522	2.828308	3.218709
2.78975	3.162556	3.836822	2.964994	3.616518	3.253146	2.773599	3.296133
2.945167	3.228525	3.70777	2.967553	3.436312	3.295106	2.673843	3.214534
2.861585	3.034059	3.624054	2.982423	3.765765	3.291744	2.740648	3.481046
2.980976	3.285002	3.80014	2.960844	3.791584	3.393151	2.709278	3.182838
2.999068	3.26323	3.807627	3.158095	3.741794	3.317394	2.714786	3.328485
2.907571	3.236767	3.840395	2.934468	3.583404	3.294949	2.649968	3.296458
2.981653	3.195025	3.793849	2.893834	3.574865	3.370528	2.692718	3.198493
2.895959	3.210998	3.723286	2.964156	3.544659	3.395565	2.620129	3.298819

Average

Control	G298S
2.397805	2.389091
2.400087	2.395794
2.412381	2.413362
2.41031	2.437919
2.402144	2.416737
2.411645	2.442327
2.409386	2.391139
2.432796	2.413268
2.443068	2.408566
2.43566	2.427194
2.424264	2.407217
2.460544	2.395325
2.427331	2.371498
2.436297	2.415296
2.438973	2.40531
2.44832	2.403183
2.447887	2.429321
2.44251	2.411633
2.421964	2.425631
2.443482	2.43687
2.441173	2.435899
2.458484	2.41056
2.448563	2.438419
2.440577	2.422814
2.440151	2.434977
2.443146	2.410233
2.412105	2.408701
2.454104	2.429278
2.450936	2.434403
2.43932	2.433581
2.445161	2.446073
2.441475	2.441813
2.445598	2.438777
2.424034	2.455171
2.437427	2.441758
2.402985	2.482558
2.423281	2.46887
2.421843	2.466762
2.427634	2.463703
2.424683	2.482786
2.396186	2.442036
2.417096	2.457284
2.415542	2.473365

2.414096	2.464899
2.44971	2.469016
2.429319	2.487667
2.441016	2.486084
2.420341	2.480884
2.437162	2.466768
2.438782	2.494194
2.4318	2.452718
2.447127	2.464594
2.429657	2.453684
2.442706	2.465914
2.406503	2.46491
2.437291	2.444237
2.4511	2.456398
2.428441	2.41981
2.450827	2.47689
2.422468	2.485807
2.486947	2.628552
2.501765	2.651571
2.498247	2.639785
2.481513	2.686516
2.497743	2.667198
2.508126	2.691531
2.489488	2.711087
2.468836	2.707751
2.488632	2.694418
2.51162	2.72609
2.501887	2.745196
2.505373	2.722368
2.502677	2.715219
2.511382	2.756377
2.507009	2.72612
2.50793	2.761918
2.504479	2.753867
2.519364	2.761966
2.508201	2.784748
2.508605	2.795447
2.514379	2.781065
2.492116	2.809357
2.525591	2.809378
2.515141	2.802556
2.501939	2.82042
2.51703	2.809858
2.520576	2.811931
2.521586	2.816341
2.506745	2.780929
2.520876	2.821333

2.522728	2.819721
2.513831	2.820436
2.532078	2.798793
2.513797	2.809696
2.520027	2.807857
2.513838	2.832935
2.51696	2.857702
2.495352	2.868585
2.527207	2.806421
2.509375	2.797864
2.52713	2.80514
2.516695	2.791011
2.522998	2.811935
2.523228	2.812026
2.508817	2.836365
2.543918	2.823229
2.528957	2.824735
2.515759	2.80979
2.550226	2.80511
2.53042	2.821821
2.521929	2.83905
2.510681	2.810442
2.525506	2.827338
2.529185	2.835751
2.521522	2.841823
2.545992	2.859912
2.525536	2.864994
2.53634	2.834664
2.518805	2.843567
2.526552	2.848886

Unnormalized average

Time	Control	G298S
00:10	2.397805	2.389091
00:20	2.400087	2.395794
00:30	2.412381	2.413362
00:40	2.41031	2.437919
00:50	2.402144	2.416737
01:00	2.411645	2.442327
01:10	2.409386	2.391139
01:20	2.432796	2.413268
01:30	2.443068	2.408566
01:40	2.43566	2.427194
01:50	2.424264	2.407217
02:00	2.460544	2.395325
02:10	2.427331	2.371498
02:20	2.436297	2.415296
02:30	2.438973	2.40531
02:40	2.44832	2.403183
02:50	2.447887	2.429321
03:00	2.44251	2.411633
03:10	2.421964	2.425631
03:20	2.443482	2.43687
03:30	2.441173	2.435899
03:40	2.458484	2.41056
03:50	2.448563	2.438419
04:00	2.440577	2.422814
04:10	2.440151	2.434977
04:20	2.443146	2.410233
04:30	2.412105	2.408701
04:40	2.454104	2.429278
04:50	2.450936	2.434403
05:00	2.43932	2.433581
05:10	2.445161	2.446073
05:20	2.441475	2.441813
05:30	2.445598	2.438777
05:40	2.424034	2.455171
05:50	2.437427	2.441758
06:00	2.402985	2.482558
06:10	2.423281	2.46887
06:20	2.421843	2.466762
06:30	2.427634	2.463703
06:40	2.424683	2.482786
06:50	2.396186	2.442036
07:00	2.417096	2.457284
07:10	2.415542	2.473365
07:20	2.414096	2.464899
07:30	2.44971	2.469016
07:40	2.429319	2.487667

Baseline Average

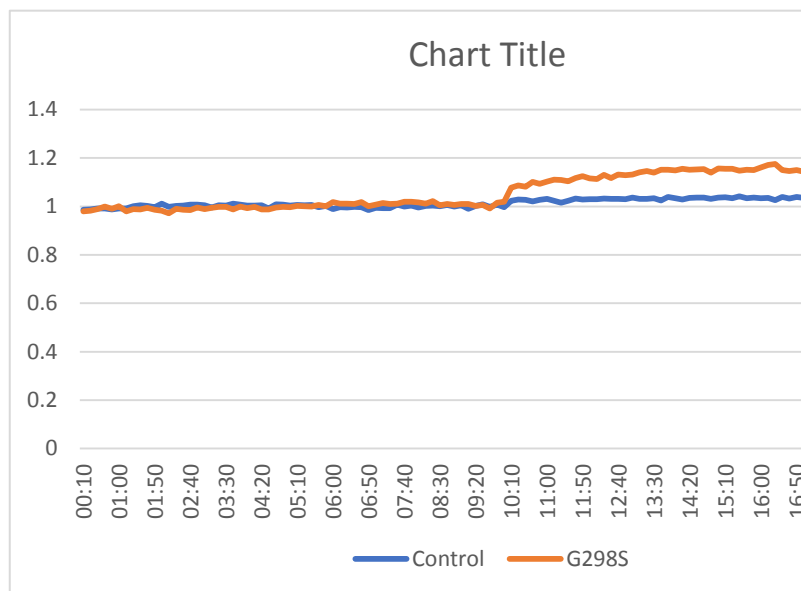
Control	G298S
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2.431278	2.43985
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07:50	2.441016	2.486084
08:00	2.420341	2.480884
08:10	2.437162	2.466768
08:20	2.438782	2.494194
08:30	2.4318	2.452718
08:40	2.447127	2.464594
08:50	2.429657	2.453684
09:00	2.442706	2.465914
09:10	2.406503	2.46491
09:20	2.437291	2.444237
09:30	2.4511	2.456398
09:40	2.428441	2.41981
09:50	2.450827	2.47689
10:00	2.422468	2.485807
10:10	2.486947	2.628552
10:20	2.501765	2.651571
10:30	2.498247	2.639785
10:40	2.481513	2.686516
10:50	2.497743	2.667198
11:00	2.508126	2.691531
11:10	2.489488	2.711087
11:20	2.468836	2.707751
11:30	2.488632	2.694418
11:40	2.51162	2.72609
11:50	2.501887	2.745196
12:00	2.505373	2.722368
12:10	2.502677	2.715219
12:20	2.511382	2.756377
12:30	2.507009	2.72612
12:40	2.50793	2.761918
12:50	2.504479	2.753867
13:00	2.519364	2.761966
13:10	2.508201	2.784748
13:20	2.508605	2.795447
13:30	2.514379	2.781065
13:40	2.492116	2.809357
13:50	2.525591	2.809378
14:00	2.515141	2.802556
14:10	2.501939	2.82042
14:20	2.51703	2.809858
14:30	2.520576	2.811931
14:40	2.521586	2.816341
14:50	2.506745	2.780929
15:00	2.520876	2.821333
15:10	2.522728	2.819721
15:20	2.513831	2.820436
15:30	2.532078	2.798793

15:40	2.513797	2.809696
15:50	2.520027	2.807857
16:00	2.513838	2.832935
16:10	2.51696	2.857702
16:20	2.495352	2.868585
16:30	2.527207	2.806421
16:40	2.509375	2.797864
16:50	2.52713	2.80514
17:00	2.516695	2.791011
17:10	2.522998	2.811935
17:20	2.523228	2.812026
17:30	2.508817	2.836365
17:40	2.543918	2.823229
17:50	2.528957	2.824735
18:00	2.515759	2.80979
18:10	2.550226	2.80511
18:20	2.53042	2.821821
18:30	2.521929	2.83905
18:40	2.510681	2.810442
18:50	2.525506	2.827338
19:00	2.529185	2.835751
19:10	2.521522	2.841823
19:20	2.545992	2.859912
19:30	2.525536	2.864994
19:40	2.53634	2.834664
19:50	2.518805	2.843567
20:00	2.526552	2.848886

Time	Control	G298S
00:10	0.986232	0.979196
00:20	0.987171	0.981943
00:30	0.992227	0.989144
00:40	0.991376	0.999209
00:50	0.988017	0.990527
01:00	0.991925	1.001015
01:10	0.990995	0.980035
01:20	1.000624	0.989105
01:30	1.004849	0.987178
01:40	1.001802	0.994813
01:50	0.997115	0.986625
02:00	1.012037	0.981751
02:10	0.998377	0.971985
02:20	1.002064	0.989936
02:30	1.003165	0.985844
02:40	1.007009	0.984972
02:50	1.006831	0.995685
03:00	1.004619	0.988435
03:10	0.996169	0.994172
03:20	1.005019	0.998779
03:30	1.00407	0.998381
03:40	1.01119	0.987995
03:50	1.007109	0.999414
04:00	1.003825	0.993018
04:10	1.003649	0.998003
04:20	1.004881	0.987861
04:30	0.992114	0.987233
04:40	1.009388	0.995667
04:50	1.008085	0.997768
05:00	1.003307	0.997431
05:10	1.00571	1.002551
05:20	1.004194	1.000805
05:30	1.00589	0.99956
05:40	0.99702	1.00628
05:50	1.002529	1.000782
06:00	0.988363	1.017505
06:10	0.996711	1.011894
06:20	0.996119	1.01103
06:30	0.998501	1.009777
06:40	0.997287	1.017598
06:50	0.985566	1.000896
07:00	0.994166	1.007146
07:10	0.993528	1.013737
07:20	0.992933	1.010267
07:30	1.007581	1.011954
07:40	0.999194	1.019598



07:50	1.004005	1.01895
08:00	0.995502	1.016819
08:10	1.00242	1.011033
08:20	1.003086	1.022274
08:30	1.000215	1.005274
08:40	1.006519	1.010142
08:50	0.999333	1.00567
09:00	1.0047	1.010683
09:10	0.98981	1.010271
09:20	1.002473	1.001798
09:30	1.008153	1.006783
09:40	0.998833	0.991786
09:50	1.00804	1.015181
10:00	0.996376	1.018836
10:10	1.022897	1.077342
10:20	1.028991	1.086776
10:30	1.027545	1.081946
10:40	1.020662	1.101099
10:50	1.027337	1.093181
11:00	1.031608	1.103155
11:10	1.023942	1.11117
11:20	1.015448	1.109802
11:30	1.02359	1.104338
11:40	1.033045	1.117319
11:50	1.029042	1.12515
12:00	1.030475	1.115793
12:10	1.029366	1.112863
12:20	1.032947	1.129732
12:30	1.031149	1.117331
12:40	1.031527	1.132003
12:50	1.030108	1.128704
13:00	1.03623	1.132023
13:10	1.031639	1.141361
13:20	1.031805	1.145746
13:30	1.03418	1.139851
13:40	1.025023	1.151447
13:50	1.038791	1.151455
14:00	1.034493	1.148659
14:10	1.029063	1.155981
14:20	1.03527	1.151652
14:30	1.036729	1.152502
14:40	1.037144	1.154309
14:50	1.03104	1.139795
15:00	1.036852	1.156355
15:10	1.037614	1.155694
15:20	1.033955	1.155988
15:30	1.04146	1.147117

15:40	1.03394	1.151586
15:50	1.036503	1.150832
16:00	1.033957	1.16111
16:10	1.035241	1.171261
16:20	1.026354	1.175722
16:30	1.039456	1.150244
16:40	1.032122	1.146736
16:50	1.039424	1.149718
17:00	1.035132	1.143928
17:10	1.037725	1.152504
17:20	1.037819	1.152541
17:30	1.031892	1.162516
17:40	1.046329	1.157132
17:50	1.040176	1.15775
18:00	1.034747	1.151624
18:10	1.048924	1.149706
18:20	1.040778	1.156555
18:30	1.037285	1.163617
18:40	1.032659	1.151891
18:50	1.038756	1.158817
19:00	1.040269	1.162265
19:10	1.037118	1.164753
19:20	1.047182	1.172167
19:30	1.038769	1.17425
19:40	1.043213	1.161819
19:50	1.036	1.165468
20:00	1.039187	1.167648

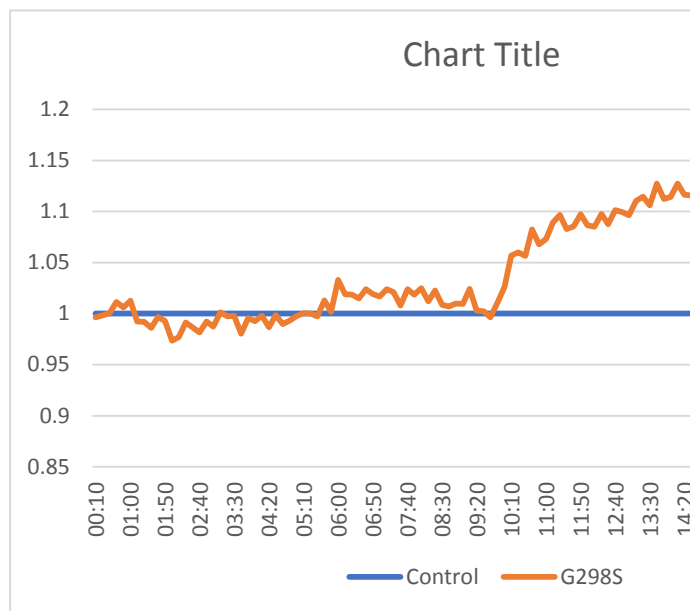


Unnormalized average	Time	Control	G298S	Normalized to each timepoint
	00:10	2.397805	2.389091	
	00:20	2.400087	2.395794	
	00:30	2.412381	2.413362	
	00:40	2.41031	2.437919	
	00:50	2.402144	2.416737	
	01:00	2.411645	2.442327	
	01:10	2.409386	2.391139	
	01:20	2.432796	2.413268	
	01:30	2.443068	2.408566	
	01:40	2.43566	2.427194	
	01:50	2.424264	2.407217	
	02:00	2.460544	2.395325	
	02:10	2.427331	2.371498	
	02:20	2.436297	2.415296	
	02:30	2.438973	2.40531	
	02:40	2.44832	2.403183	
	02:50	2.447887	2.429321	
	03:00	2.44251	2.411633	
	03:10	2.421964	2.425631	
	03:20	2.443482	2.43687	
	03:30	2.441173	2.435899	
	03:40	2.458484	2.41056	
	03:50	2.448563	2.438419	
	04:00	2.440577	2.422814	
	04:10	2.440151	2.434977	
	04:20	2.443146	2.410233	
	04:30	2.412105	2.408701	
	04:40	2.454104	2.429278	
	04:50	2.450936	2.434403	
	05:00	2.43932	2.433581	
	05:10	2.445161	2.446073	
	05:20	2.441475	2.441813	
	05:30	2.445598	2.438777	
	05:40	2.424034	2.455171	
	05:50	2.437427	2.441758	
	06:00	2.402985	2.482558	
	06:10	2.423281	2.46887	
	06:20	2.421843	2.466762	
	06:30	2.427634	2.463703	
	06:40	2.424683	2.482786	
	06:50	2.396186	2.442036	
	07:00	2.417096	2.457284	
	07:10	2.415542	2.473365	
	07:20	2.414096	2.464899	
	07:30	2.44971	2.469016	
	07:40	2.429319	2.487667	

07:50	2.441016	2.486084
08:00	2.420341	2.480884
08:10	2.437162	2.466768
08:20	2.438782	2.494194
08:30	2.4318	2.452718
08:40	2.447127	2.464594
08:50	2.429657	2.453684
09:00	2.442706	2.465914
09:10	2.406503	2.46491
09:20	2.437291	2.444237
09:30	2.4511	2.456398
09:40	2.428441	2.41981
09:50	2.450827	2.47689
10:00	2.422468	2.485807
10:10	2.486947	2.628552
10:20	2.501765	2.651571
10:30	2.498247	2.639785
10:40	2.481513	2.686516
10:50	2.497743	2.667198
11:00	2.508126	2.691531
11:10	2.489488	2.711087
11:20	2.468836	2.707751
11:30	2.488632	2.694418
11:40	2.51162	2.72609
11:50	2.501887	2.745196
12:00	2.505373	2.722368
12:10	2.502677	2.715219
12:20	2.511382	2.756377
12:30	2.507009	2.72612
12:40	2.50793	2.761918
12:50	2.504479	2.753867
13:00	2.519364	2.761966
13:10	2.508201	2.784748
13:20	2.508605	2.795447
13:30	2.514379	2.781065
13:40	2.492116	2.809357
13:50	2.525591	2.809378
14:00	2.515141	2.802556
14:10	2.501939	2.82042
14:20	2.51703	2.809858
14:30	2.520576	2.811931
14:40	2.521586	2.816341
14:50	2.506745	2.780929
15:00	2.520876	2.821333
15:10	2.522728	2.819721
15:20	2.513831	2.820436
15:30	2.532078	2.798793

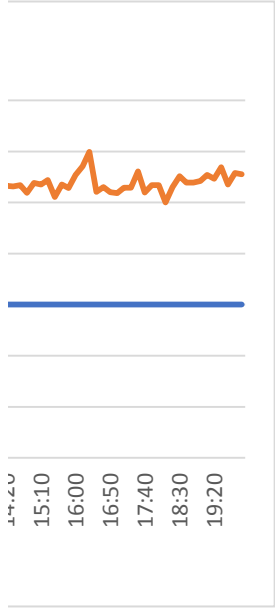
15:40	2.513797	2.809696
15:50	2.520027	2.807857
16:00	2.513838	2.832935
16:10	2.51696	2.857702
16:20	2.495352	2.868585
16:30	2.527207	2.806421
16:40	2.509375	2.797864
16:50	2.52713	2.80514
17:00	2.516695	2.791011
17:10	2.522998	2.811935
17:20	2.523228	2.812026
17:30	2.508817	2.836365
17:40	2.543918	2.823229
17:50	2.528957	2.824735
18:00	2.515759	2.80979
18:10	2.550226	2.80511
18:20	2.53042	2.821821
18:30	2.521929	2.83905
18:40	2.510681	2.810442
18:50	2.525506	2.827338
19:00	2.529185	2.835751
19:10	2.521522	2.841823
19:20	2.545992	2.859912
19:30	2.525536	2.864994
19:40	2.53634	2.834664
19:50	2.518805	2.843567
20:00	2.526552	2.848886

Time	Control	G298S
00:10	1	0.996366
00:20	1	0.998211
00:30	1	1.000407
00:40	1	1.011454
00:50	1	1.006075
01:00	1	1.012722
01:10	1	0.992427
01:20	1	0.991973
01:30	1	0.985878
01:40	1	0.996524
01:50	1	0.992968
02:00	1	0.973494
02:10	1	0.976998
02:20	1	0.99138
02:30	1	0.986198
02:40	1	0.981564
02:50	1	0.992415
03:00	1	0.987358
03:10	1	1.001514
03:20	1	0.997294
03:30	1	0.997839
03:40	1	0.980506
03:50	1	0.995857
04:00	1	0.992722
04:10	1	0.99788
04:20	1	0.986528
04:30	1	0.998589
04:40	1	0.989884
04:50	1	0.993255
05:00	1	0.997647
05:10	1	1.000373
05:20	1	1.000138
05:30	1	0.997211
05:40	1	1.012845
05:50	1	1.001777
06:00	1	1.033114
06:10	1	1.018813
06:20	1	1.018547
06:30	1	1.014858
06:40	1	1.023963
06:50	1	1.019135
07:00	1	1.016627
07:10	1	1.023938
07:20	1	1.021045
07:30	1	1.007881
07:40	1	1.024018



07:50	1	1.018463
08:00	1	1.025014
08:10	1	1.012148
08:20	1	1.022721
08:30	1	1.008602
08:40	1	1.007138
08:50	1	1.009889
09:00	1	1.009501
09:10	1	1.02427
09:20	1	1.00285
09:30	1	1.002162
09:40	1	0.996446
09:50	1	1.010635
10:00	1	1.026146
10:10	1	1.056939
10:20	1	1.05988
10:30	1	1.056655
10:40	1	1.082612
10:50	1	1.067843
11:00	1	1.073125
11:10	1	1.089014
11:20	1	1.096772
11:30	1	1.08269
11:40	1	1.085391
11:50	1	1.09725
12:00	1	1.086612
12:10	1	1.084926
12:20	1	1.097554
12:30	1	1.087399
12:40	1	1.101274
12:50	1	1.099577
13:00	1	1.096295
13:10	1	1.110257
13:20	1	1.114343
13:30	1	1.106064
13:40	1	1.127298
13:50	1	1.112365
14:00	1	1.114274
14:10	1	1.127294
14:20	1	1.116339
14:30	1	1.115591
14:40	1	1.116893
14:50	1	1.109379
15:00	1	1.119188
15:10	1	1.117727
15:20	1	1.121967
15:30	1	1.105335

15:40	1	1.11771
15:50	1	1.114217
16:00	1	1.126936
16:10	1	1.135378
16:20	1	1.149571
16:30	1	1.110483
16:40	1	1.114964
16:50	1	1.11001
17:00	1	1.108999
17:10	1	1.114522
17:20	1	1.114456
17:30	1	1.130559
17:40	1	1.109795
17:50	1	1.116956
18:00	1	1.116876
18:10	1	1.099946
18:20	1	1.115159
18:30	1	1.125745
18:40	1	1.119394
18:50	1	1.119513
19:00	1	1.121212
19:10	1	1.127027
19:20	1	1.1233
19:30	1	1.13441
19:40	1	1.11762
19:50	1	1.128935
20:00	1	1.127579



Unnormali Time	Control	G298S		Control	G298S	
00:10	2.397805	2.389091		05:10	2.445161	2.446073
00:20	2.400087	2.395794		05:20	2.441475	2.441813
00:30	2.412381	2.413362		05:30	2.445598	2.438777
00:40	2.41031	2.437919		05:40	2.424034	2.455171
00:50	2.402144	2.416737		05:50	2.437427	2.441758
01:00	2.411645	2.442327		06:00	2.402985	2.482558
01:10	2.409386	2.391139		06:10	2.423281	2.46887
01:20	2.432796	2.413268		06:20	2.421843	2.466762
01:30	2.443068	2.408566		06:30	2.427634	2.463703
01:40	2.43566	2.427194		06:40	2.424683	2.482786
01:50	2.424264	2.407217		06:50	2.396186	2.442036
02:00	2.460544	2.395325		07:00	2.417096	2.457284
02:10	2.427331	2.371498		07:10	2.415542	2.473365
02:20	2.436297	2.415296		07:20	2.414096	2.464899
02:30	2.438973	2.40531		07:30	2.44971	2.469016
02:40	2.44832	2.403183		07:40	2.429319	2.487667
02:50	2.447887	2.429321		07:50	2.441016	2.486084
03:00	2.44251	2.411633		08:00	2.420341	2.480884
03:10	2.421964	2.425631		08:10	2.437162	2.466768
03:20	2.443482	2.43687		08:20	2.438782	2.494194
03:30	2.441173	2.435899		08:30	2.4318	2.452718
03:40	2.458484	2.41056		08:40	2.447127	2.464594
03:50	2.448563	2.438419		08:50	2.429657	2.453684
04:00	2.440577	2.422814		09:00	2.442706	2.465914
04:10	2.440151	2.434977		09:10	2.406503	2.46491
04:20	2.443146	2.410233		09:20	2.437291	2.444237
04:30	2.412105	2.408701		09:30	2.4511	2.456398
04:40	2.454104	2.429278		09:40	2.428441	2.41981
04:50	2.450936	2.434403		09:50	2.450827	2.47689
05:00	2.43932	2.433581		10:00	2.422468	2.485807
05:10	2.445161	2.446073		Average	2.430043	2.463181
05:20	2.441475	2.441813				
05:30	2.445598	2.438777				
05:40	2.424034	2.455171				
05:50	2.437427	2.441758				
06:00	2.402985	2.482558				
06:10	2.423281	2.46887				
06:20	2.421843	2.466762				
06:30	2.427634	2.463703				
06:40	2.424683	2.482786				
06:50	2.396186	2.442036				
07:00	2.417096	2.457284				
07:10	2.415542	2.473365				
07:20	2.414096	2.464899				
07:30	2.44971	2.469016				
07:40	2.429319	2.487667				

07:50	2.441016	2.486084
08:00	2.420341	2.480884
08:10	2.437162	2.466768
08:20	2.438782	2.494194
08:30	2.4318	2.452718
08:40	2.447127	2.464594
08:50	2.429657	2.453684
09:00	2.442706	2.465914
09:10	2.406503	2.46491
09:20	2.437291	2.444237
09:30	2.4511	2.456398
09:40	2.428441	2.41981
09:50	2.450827	2.47689
10:00	2.422468	2.485807
10:10	2.486947	2.628552
10:20	2.501765	2.651571
10:30	2.498247	2.639785
10:40	2.481513	2.686516
10:50	2.497743	2.667198
11:00	2.508126	2.691531
11:10	2.489488	2.711087
11:20	2.468836	2.707751
11:30	2.488632	2.694418
11:40	2.51162	2.72609
11:50	2.501887	2.745196
12:00	2.505373	2.722368
12:10	2.502677	2.715219
12:20	2.511382	2.756377
12:30	2.507009	2.72612
12:40	2.50793	2.761918
12:50	2.504479	2.753867
13:00	2.519364	2.761966
13:10	2.508201	2.784748
13:20	2.508605	2.795447
13:30	2.514379	2.781065
13:40	2.492116	2.809357
13:50	2.525591	2.809378
14:00	2.515141	2.802556
14:10	2.501939	2.82042
14:20	2.51703	2.809858
14:30	2.520576	2.811931
14:40	2.521586	2.816341
14:50	2.506745	2.780929
15:00	2.520876	2.821333
15:10	2.522728	2.819721
15:20	2.513831	2.820436
15:30	2.532078	2.798793

15:40	2.513797	2.809696
15:50	2.520027	2.807857
16:00	2.513838	2.832935
16:10	2.51696	2.857702
16:20	2.495352	2.868585
16:30	2.527207	2.806421
16:40	2.509375	2.797864
16:50	2.52713	2.80514
17:00	2.516695	2.791011
17:10	2.522998	2.811935
17:20	2.523228	2.812026
17:30	2.508817	2.836365
17:40	2.543918	2.823229
17:50	2.528957	2.824735
18:00	2.515759	2.80979
18:10	2.550226	2.80511
18:20	2.53042	2.821821
18:30	2.521929	2.83905
18:40	2.510681	2.810442
18:50	2.525506	2.827338
19:00	2.529185	2.835751
19:10	2.521522	2.841823
19:20	2.545992	2.859912
19:30	2.525536	2.864994
19:40	2.53634	2.834664
19:50	2.518805	2.843567
20:00	2.526552	2.848886

Control	G298S	Control-un	G298S-uns	Control-sti	G298S-unstim
2.522728	2.819721	1.006221	1.006596	0.999821	1.117527
2.513831	2.820436	1.004705	1.004843	0.996295	1.11781
2.532078	2.798793	1.006401	1.003594	1.003527	1.109233
2.513797	2.809696	0.997527	1.01034	0.996281	1.113554
2.520027	2.807857	1.003038	1.004821	0.998751	1.112825
2.513838	2.832935	0.988865	1.021611	0.996298	1.122764
2.51696	2.857702	0.997217	1.015978	0.997535	1.13258
2.495352	2.868585	0.996626	1.01511	0.988971	1.136893
2.527207	2.806421	0.999009	1.013852	1.001596	1.112256
2.509375	2.797864	0.997794	1.021704	0.994529	1.108864
2.52713	2.80514	0.986067	1.004935	1.001566	1.111748
2.516695	2.791011	0.994672	1.01121	0.99743	1.106148
2.522998	2.811935	0.994033	1.017828	0.999928	1.114441
2.523228	2.812026	0.993437	1.014344	1.000019	1.114477
2.508817	2.836365	1.008093	1.016038	0.994308	1.124123
2.543918	2.823229	0.999702	1.023713	1.008219	1.118917
2.528957	2.824735	1.004515	1.023061	1.00229	1.119514
2.515759	2.80979	0.996008	1.020922	0.997059	1.113591
2.550226	2.80511	1.002929	1.015113	1.010719	1.111736
2.53042	2.821821	1.003596	1.026399	1.00287	1.118359
2.521929	2.83905	1.000723	1.009331	0.999504	1.125187
2.510681	2.810442	1.00703	1.014218	0.995046	1.113849
2.525506	2.827338	0.999841	1.009728	1.000922	1.120546
2.529185	2.835751	1.005211	1.014761	1.00238	1.12388
2.521522	2.841823	0.990313	1.014348	0.999343	1.126286
2.545992	2.859912	1.002983	1.005841	1.009041	1.133456
2.525536	2.864994	1.008665	1.010846	1.000934	1.13547
2.53634	2.834664	0.999341	0.995789	1.005216	1.123449
2.518805	2.843567	1.008553	1.019278	0.998266	1.126978
2.526552	2.848886	0.996883	1.022948	1.001337	1.129086
2.52318	Average	1	1.013637	1	1.119852

Cont-no	sti	Cont-stim	G298S-no	: G298S-stim
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1.006221	1.038141	0.993054	1.144748
1.004705	1.03448	0.991325	1.145038
1.006401	1.041989	0.990092	1.136252
0.997527	1.034466	0.996748	1.140678
1.003038	1.03703	0.991303	1.139931
0.988865	1.034483	1.007867	1.150112
0.997217	1.035768	1.00231	1.160167
0.996626	1.026876	1.001454	1.164586
0.999009	1.039985	1.000212	1.139348
0.997794	1.032646	1.007959	1.135874
0.986067	1.039953	0.991416	1.138828
0.994672	1.035659	0.997606	1.133092
0.994033	1.038252	1.004135	1.141587
0.993437	1.038347	1.000698	1.141624
1.008093	1.032417	1.002369	1.151505
0.999702	1.046861	1.009941	1.146172
1.004515	1.040705	1.009298	1.146783
0.996008	1.035273	1.007187	1.140716
1.002929	1.049457	1.001456	1.138816
1.003596	1.041307	1.012591	1.1456
1.000723	1.037812	0.995752	1.152595
1.00703	1.033184	1.000574	1.140981
0.999841	1.039285	0.996144	1.14784
1.005211	1.040798	1.001109	1.151256
0.990313	1.037645	1.000702	1.153721
1.002983	1.047715	0.992309	1.161064
1.008665	1.039297	0.997246	1.163127
0.999341	1.043743	0.982392	1.150814
1.008553	1.036527	1.005566	1.154429
0.996883	1.039715	1.009186	1.156588
1	1.038327	1	1.147129