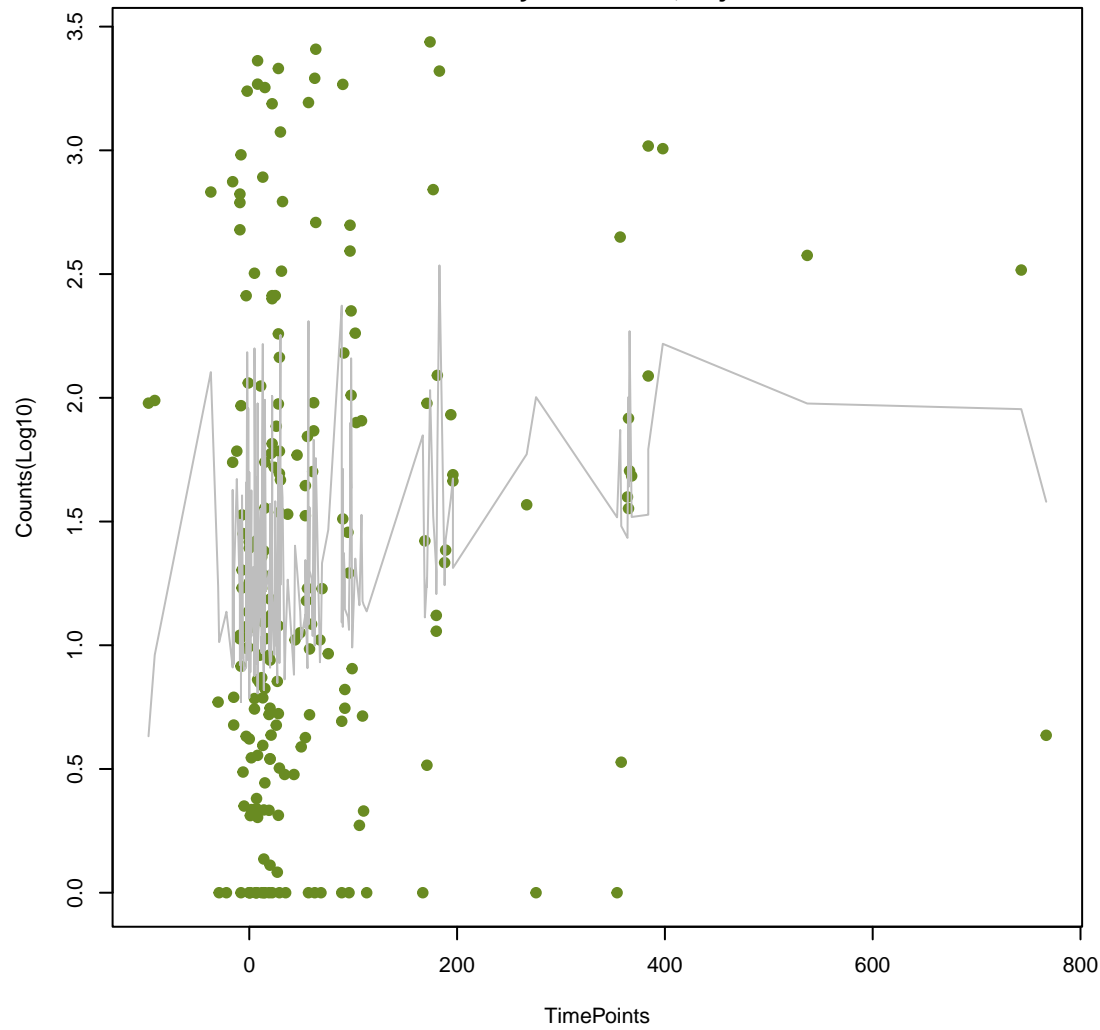


major facilitator superfamily (MFS) antibiotic efflux pump;resistance–nodulation–cell division (RND) a

ANOVA P=0.0223, adj. ANOVA–P=0.344

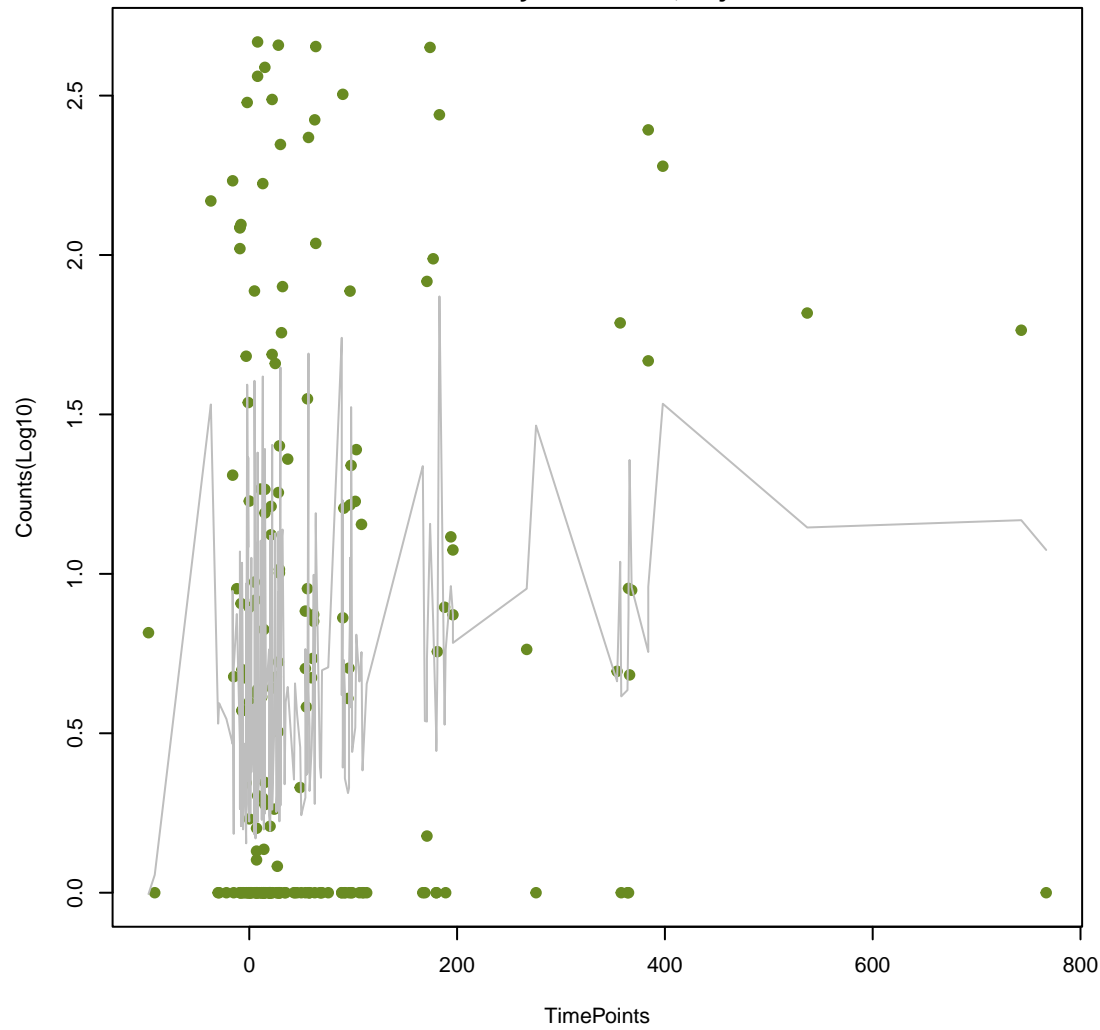
Line vs. Poly F–P=0.296, adj. F–P=1



kdpDE

ANOVA P=0.0253, adj. ANOVA–P=0.344

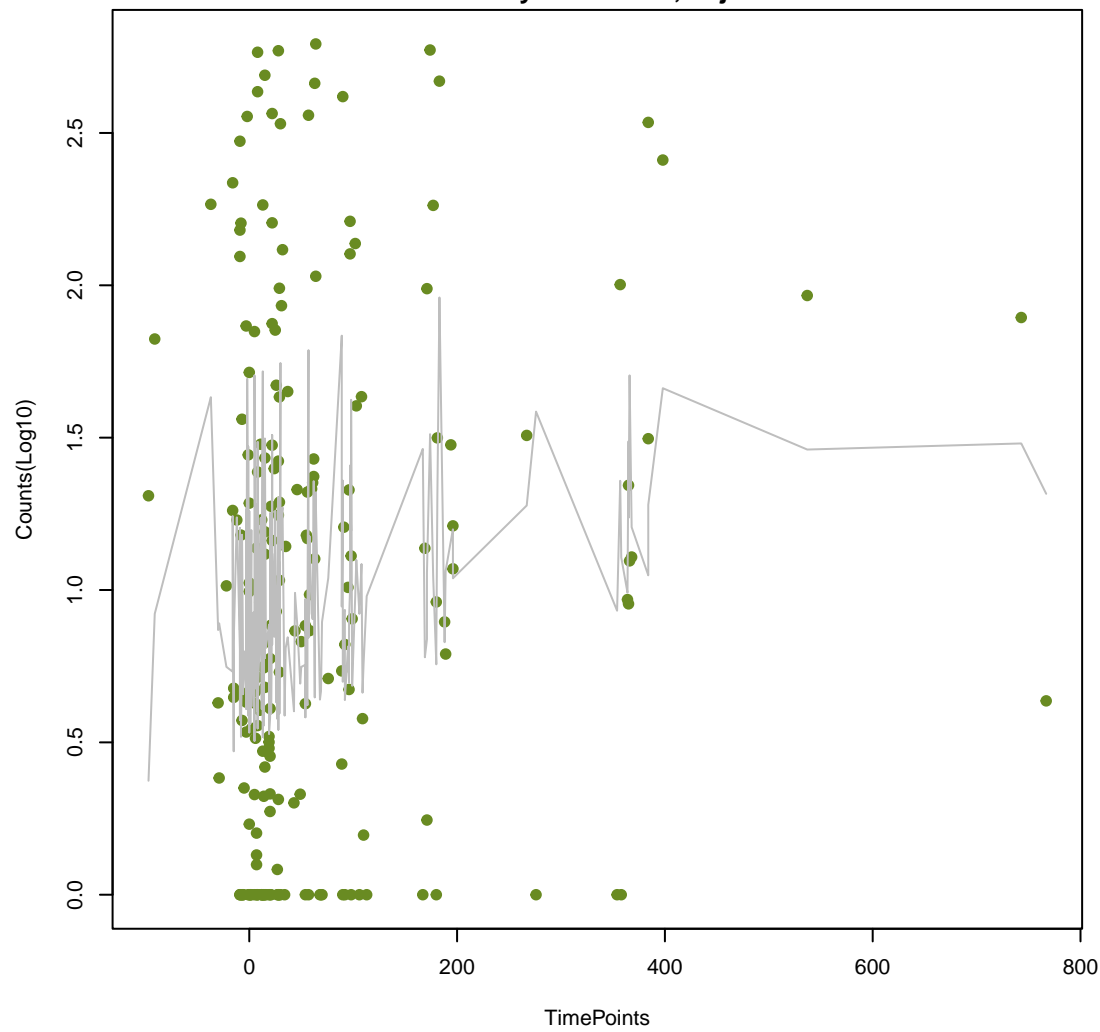
Line vs. Poly F–P=0.399, adj. F–P=1



undecaprenyl pyrophosphate related proteins

ANOVA P=0.0419, adj. ANOVA–P=0.481

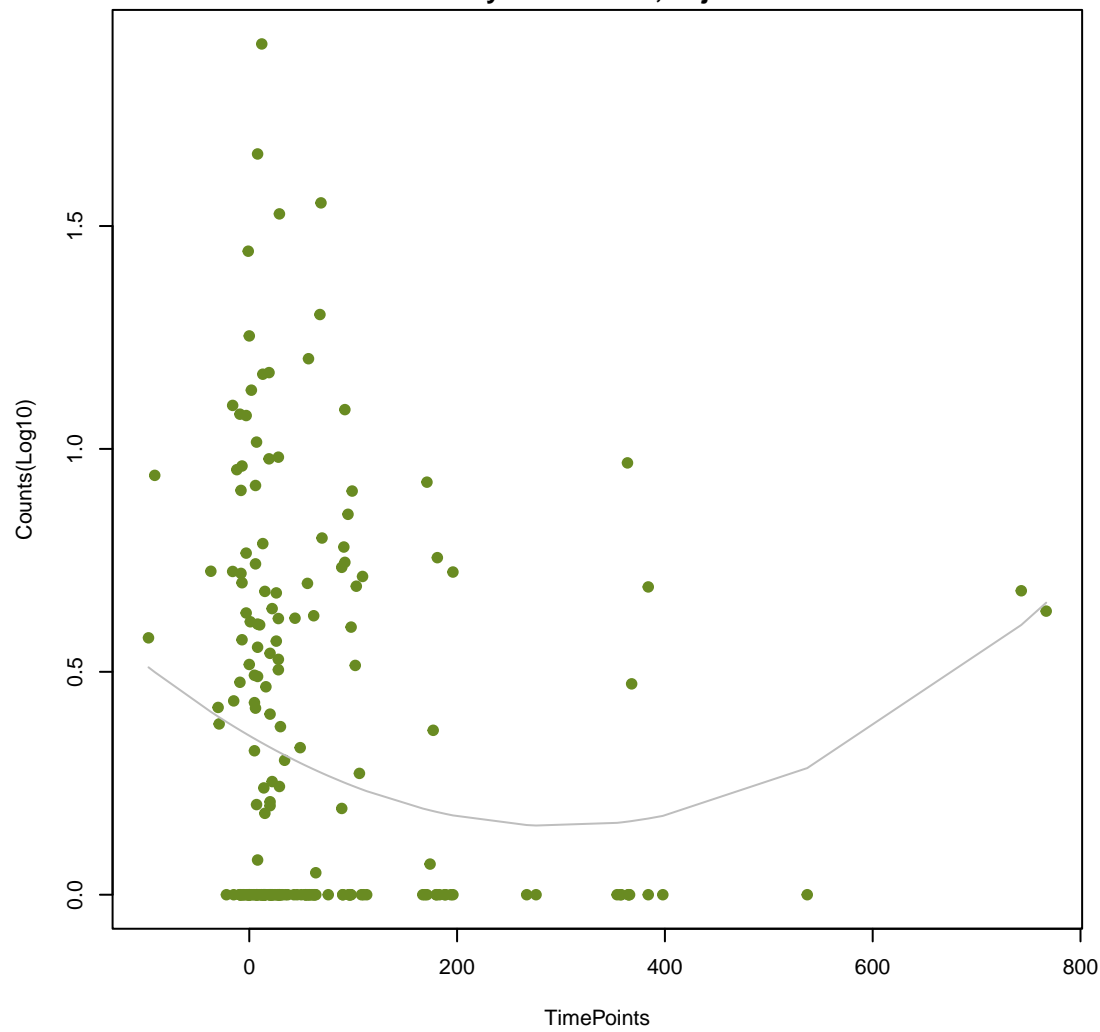
Line vs. Poly F–P=0.384, adj. F–P=1



streptogramin vat acetyltransferase

ANOVA P=0.0441, adj. ANOVA–P=0.481

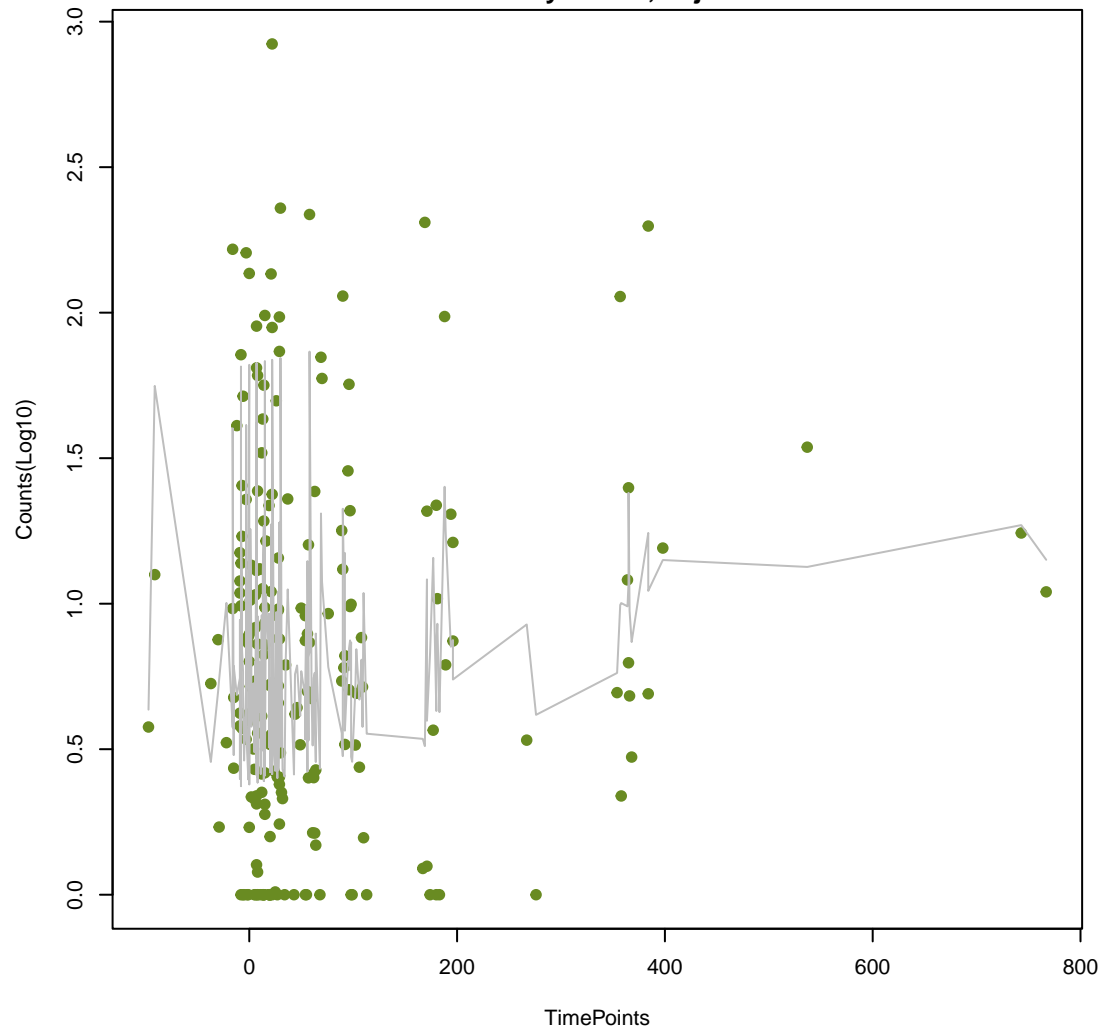
Line vs. Poly F–P=0.0218, adj. F–P=0.423



rifamycin–resistant beta–subunit of RNA polymerase (rpoB)

ANOVA P=0.06, adj. ANOVA–P=0.595

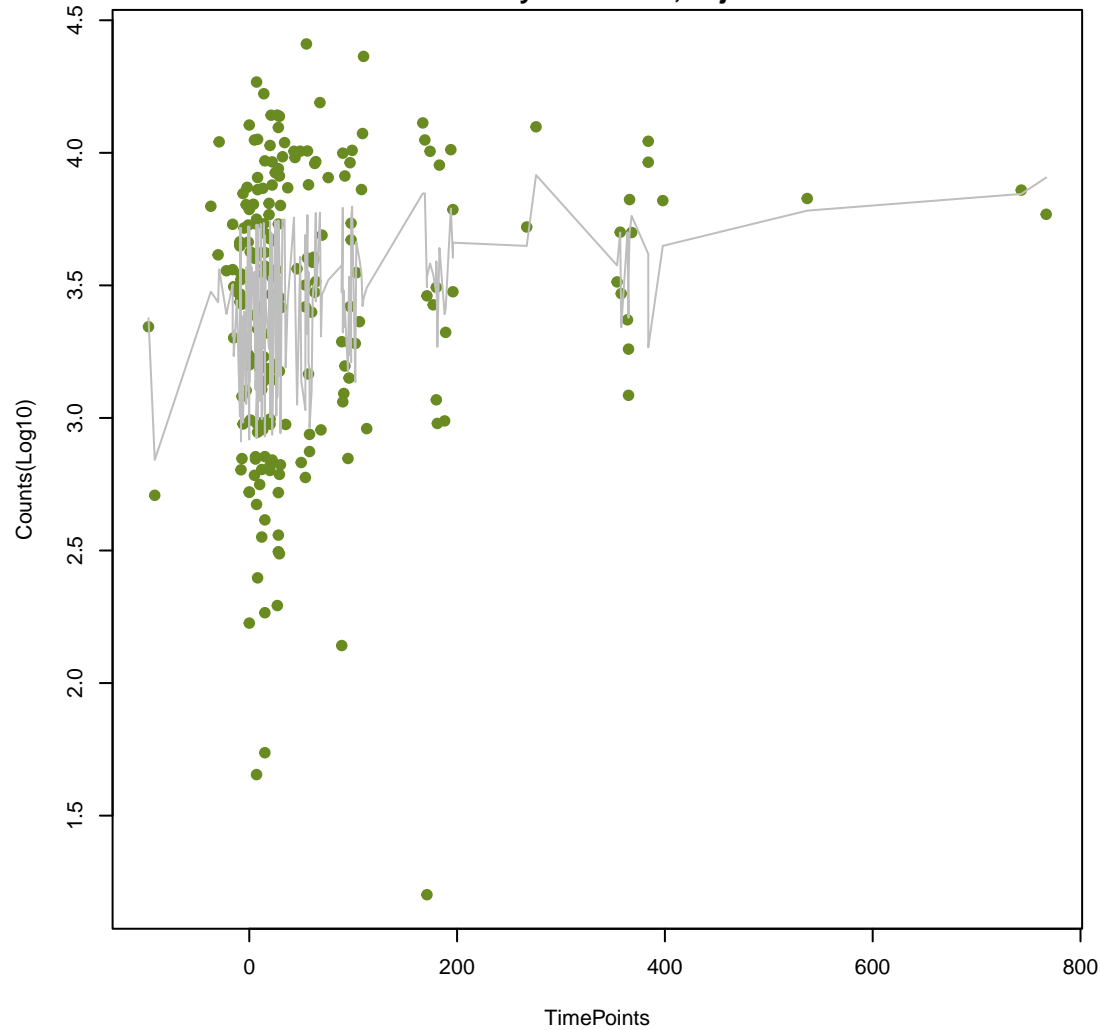
Line vs. Poly F–P=1, adj. F–P=1

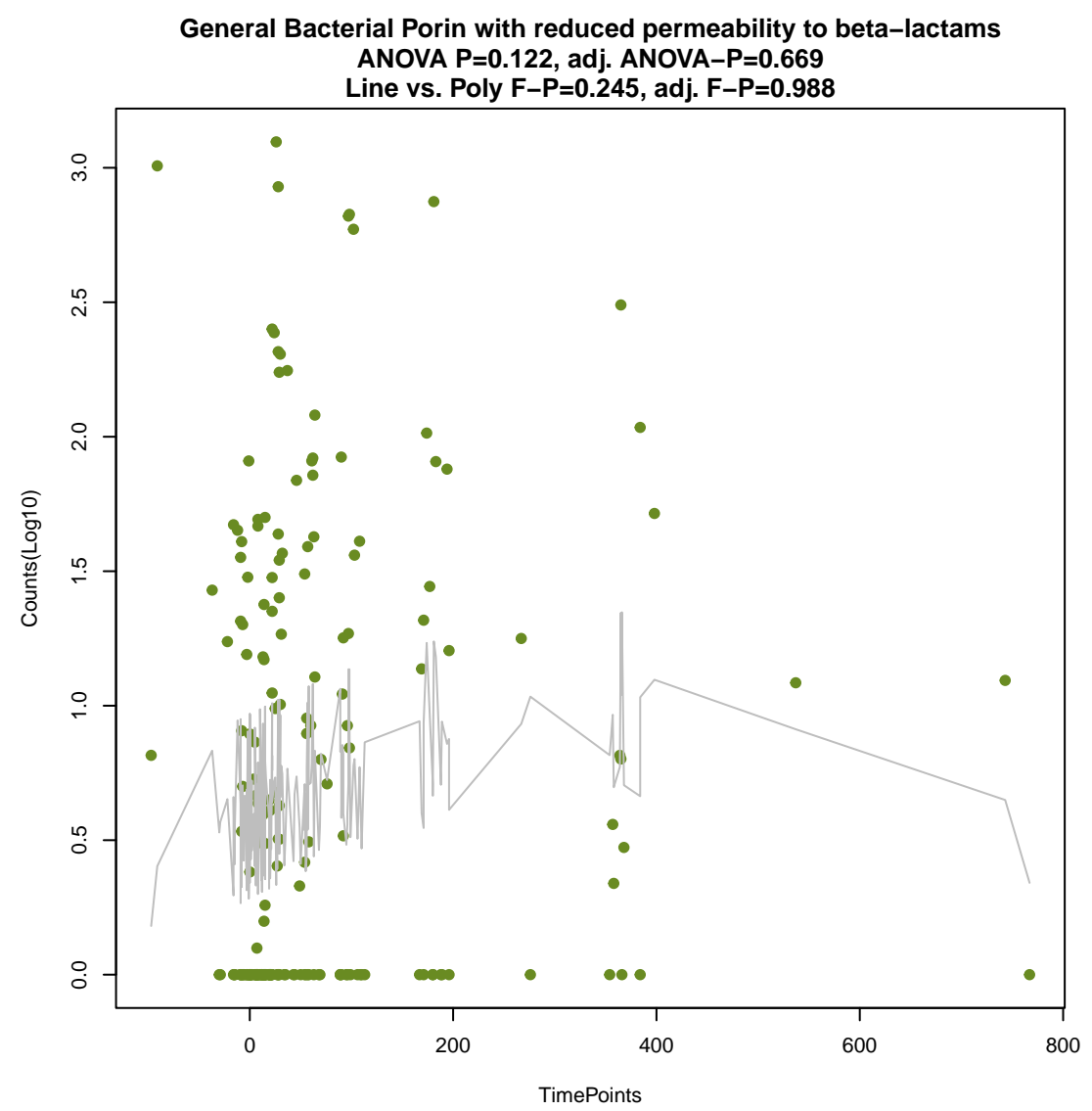
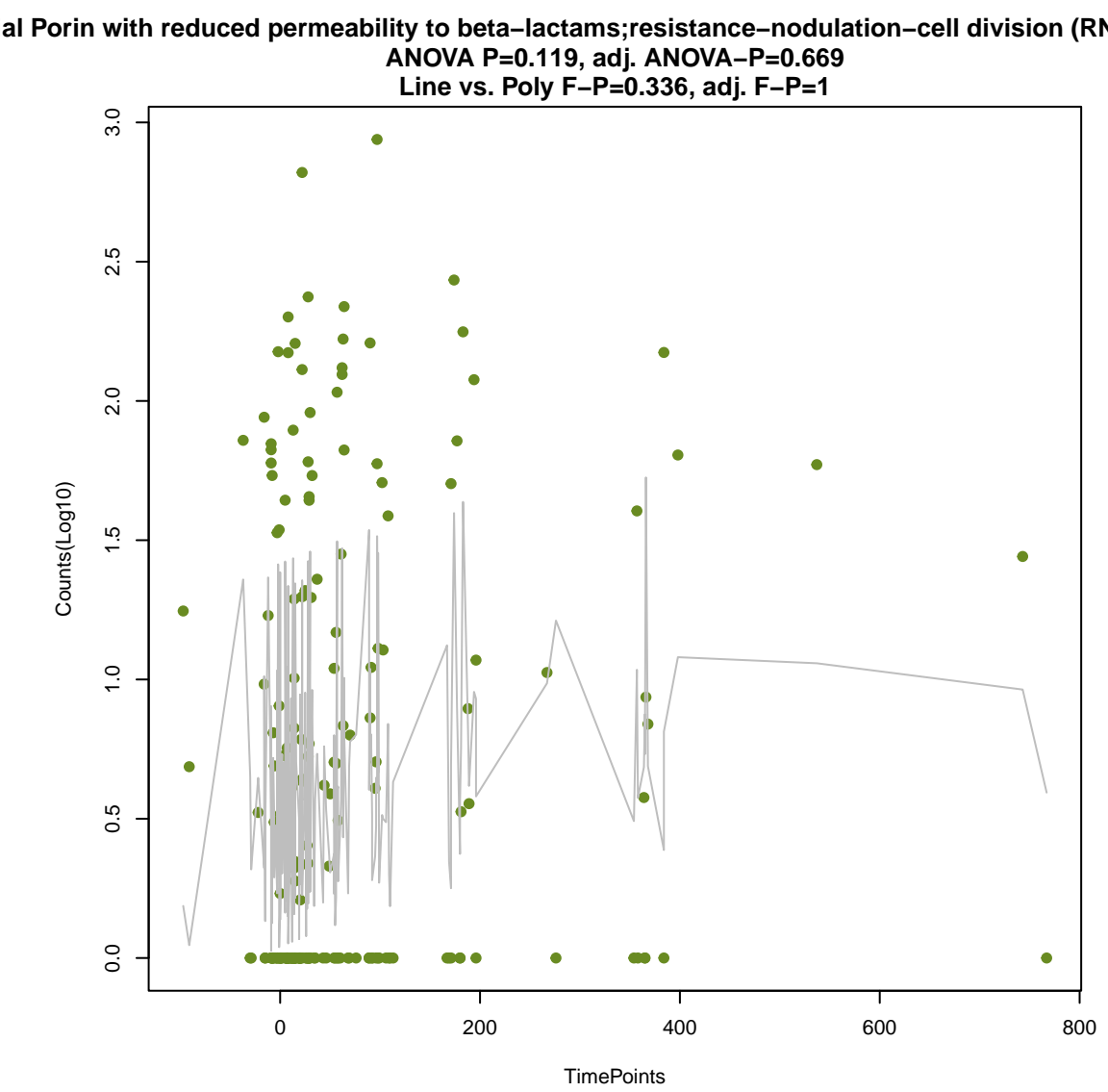
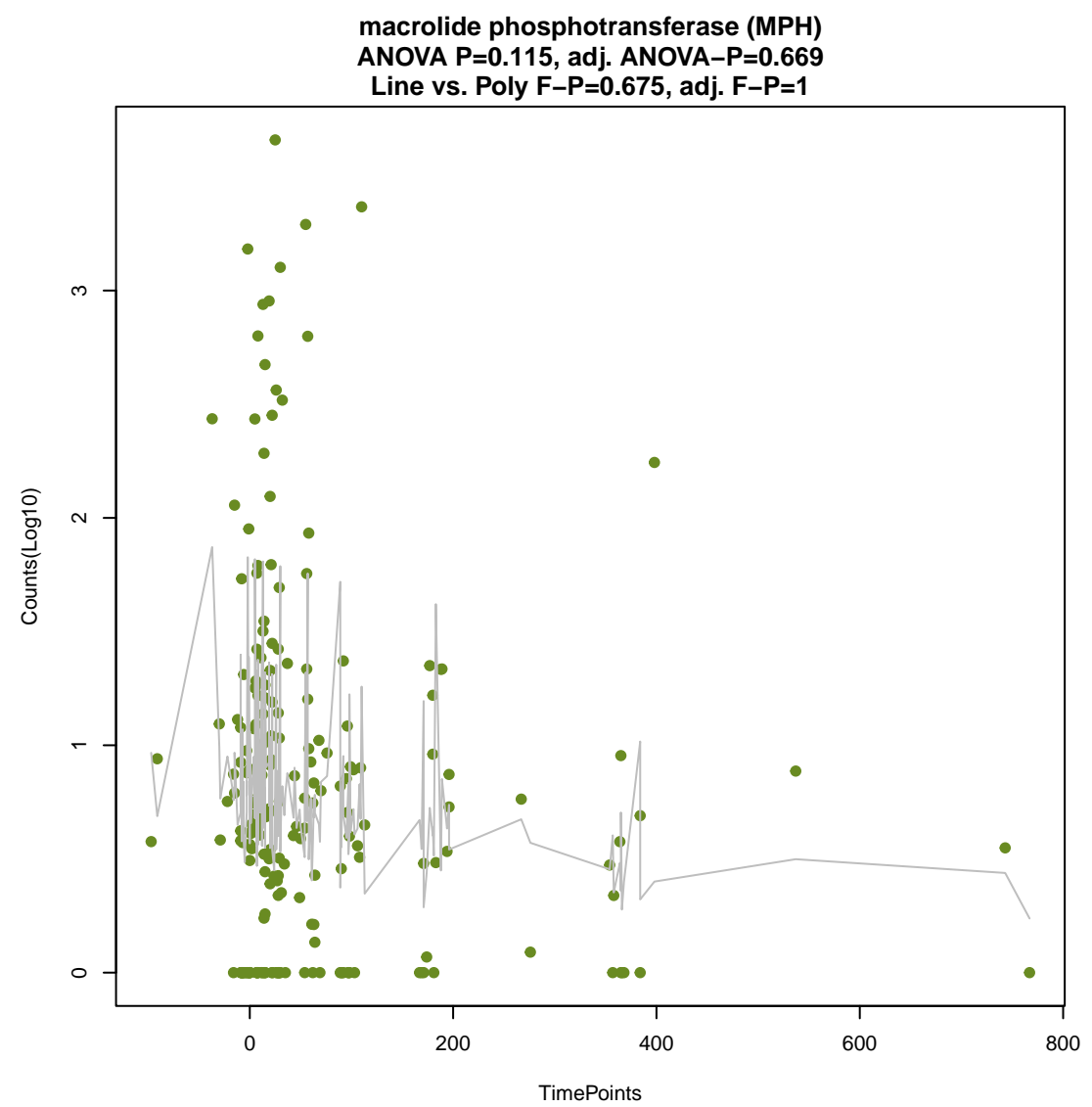
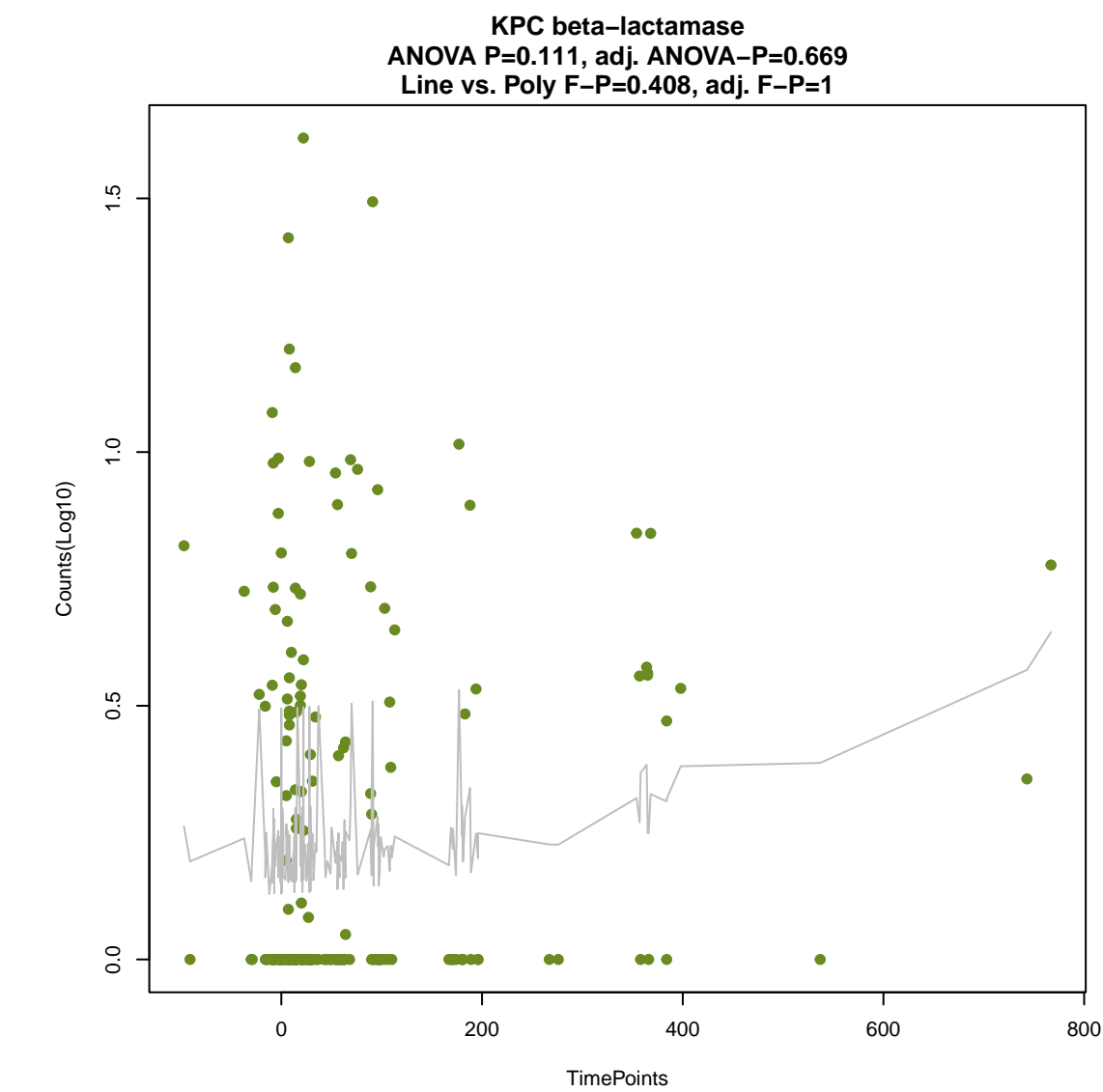
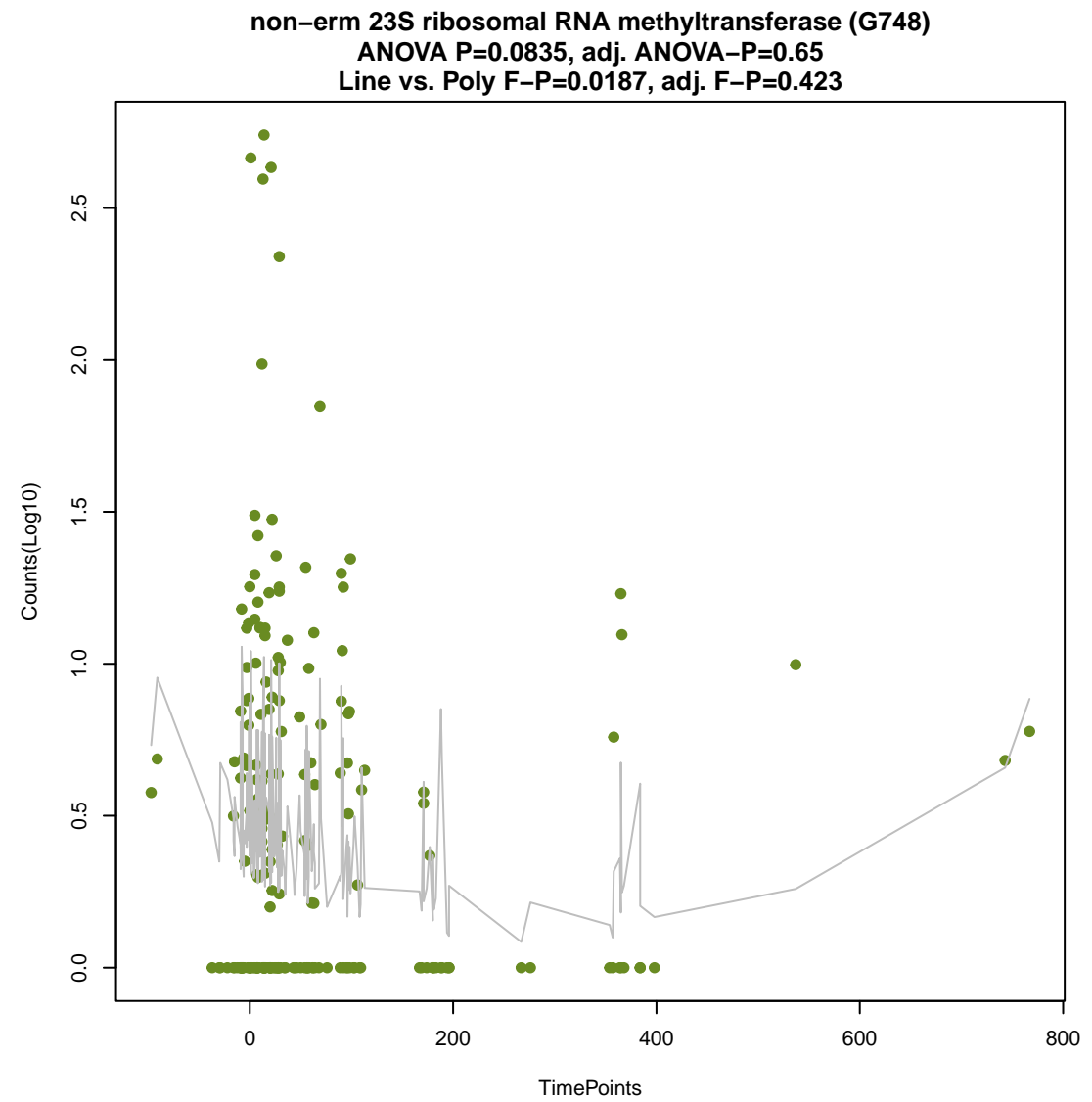
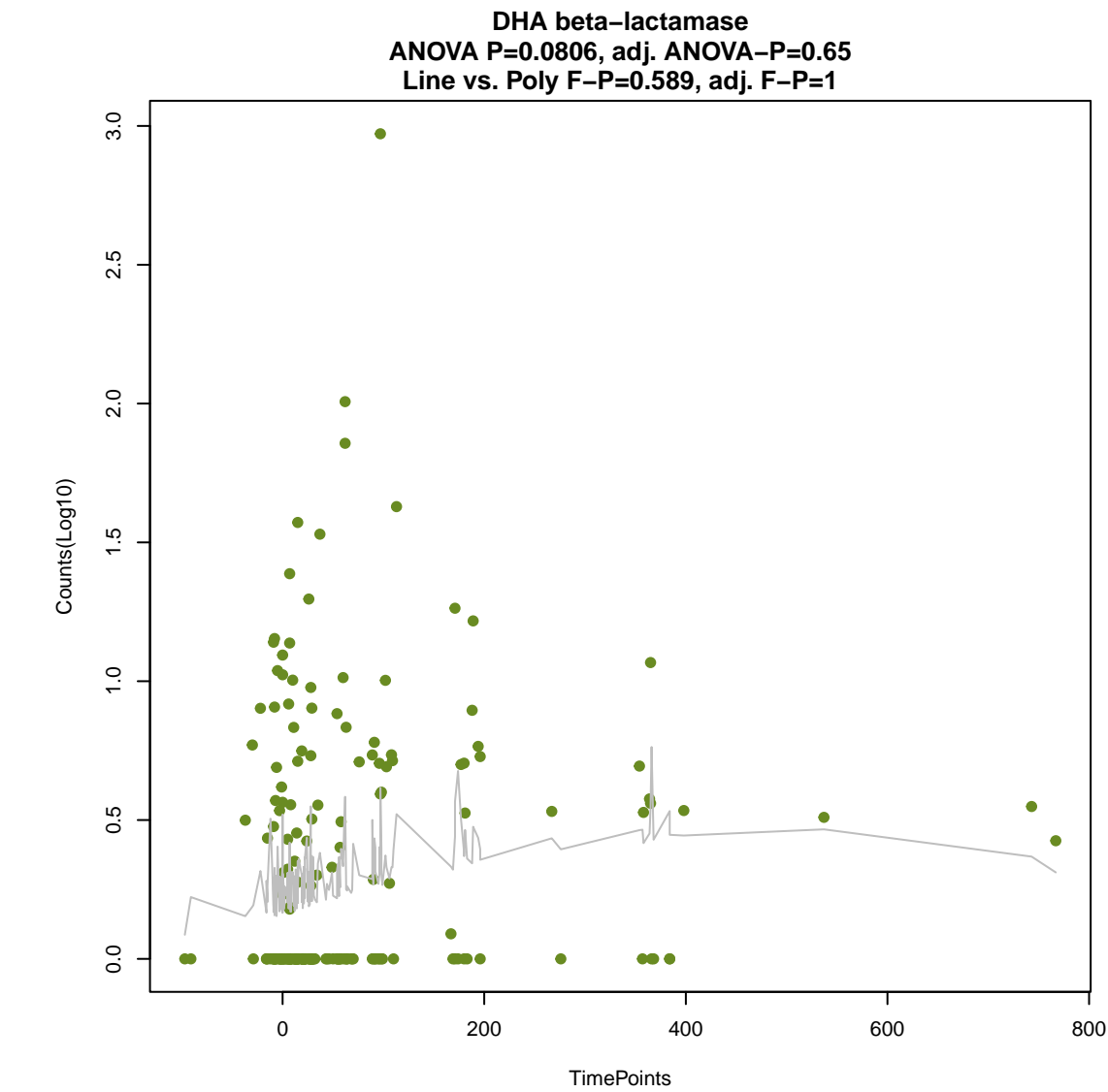


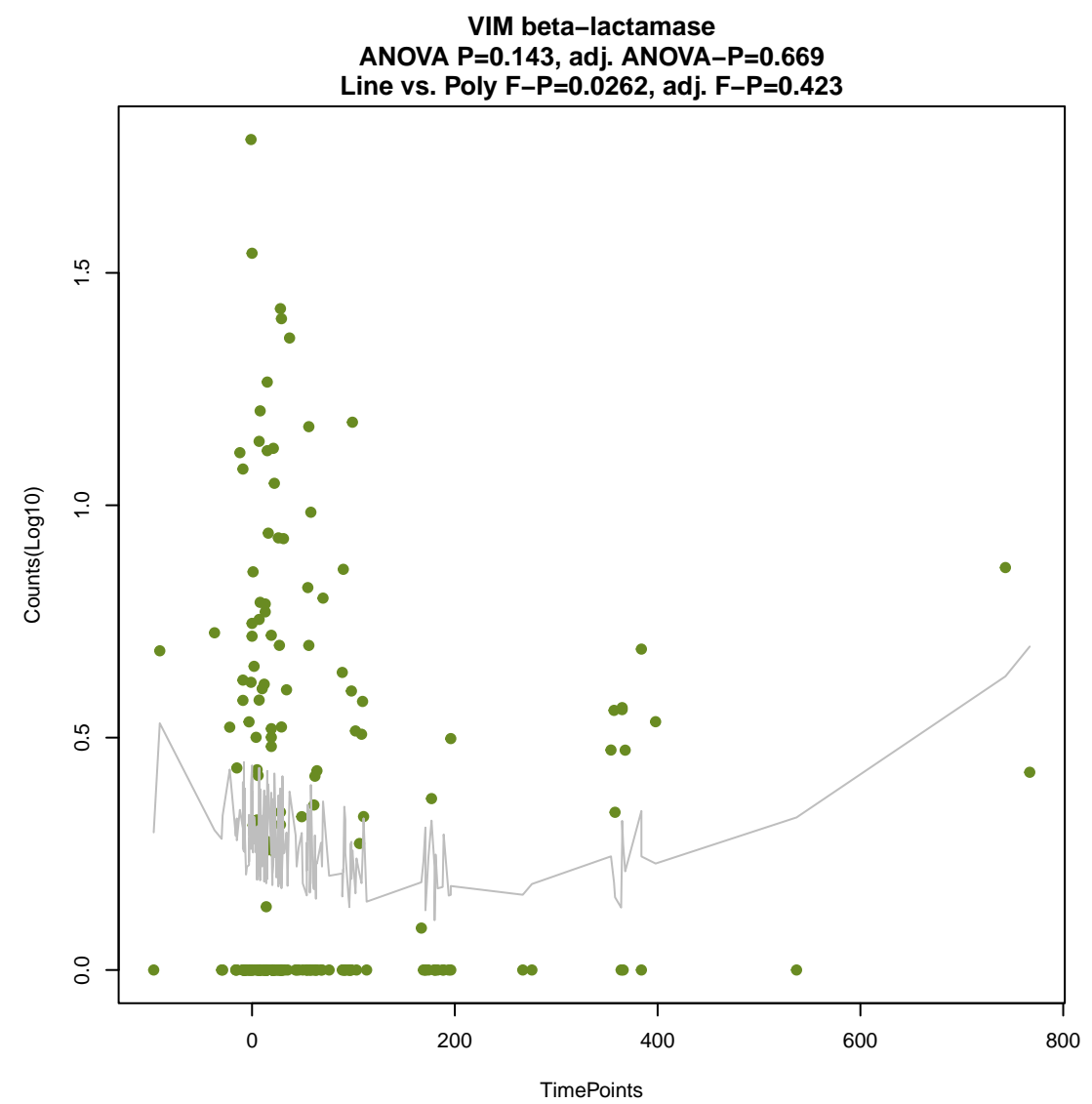
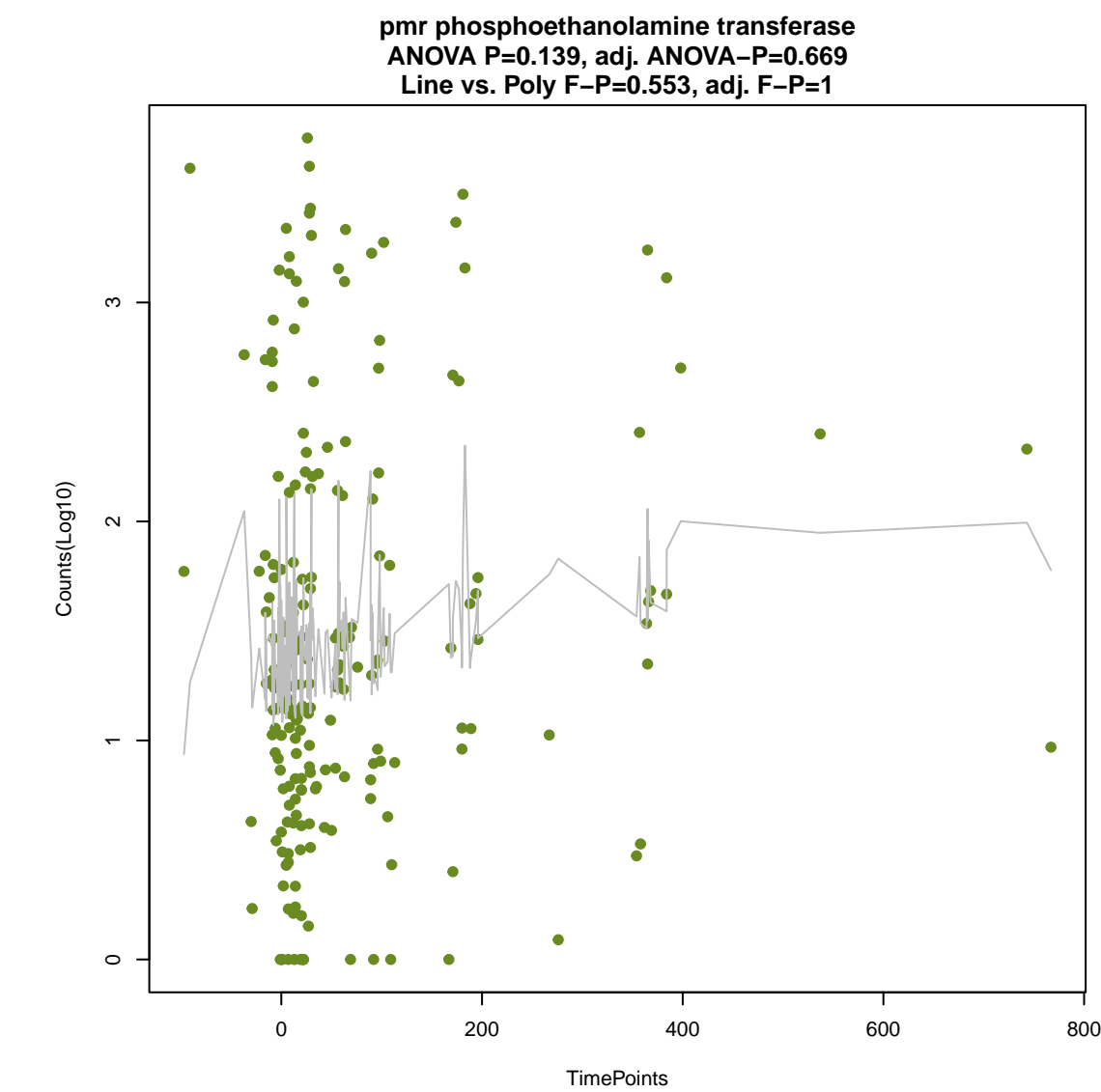
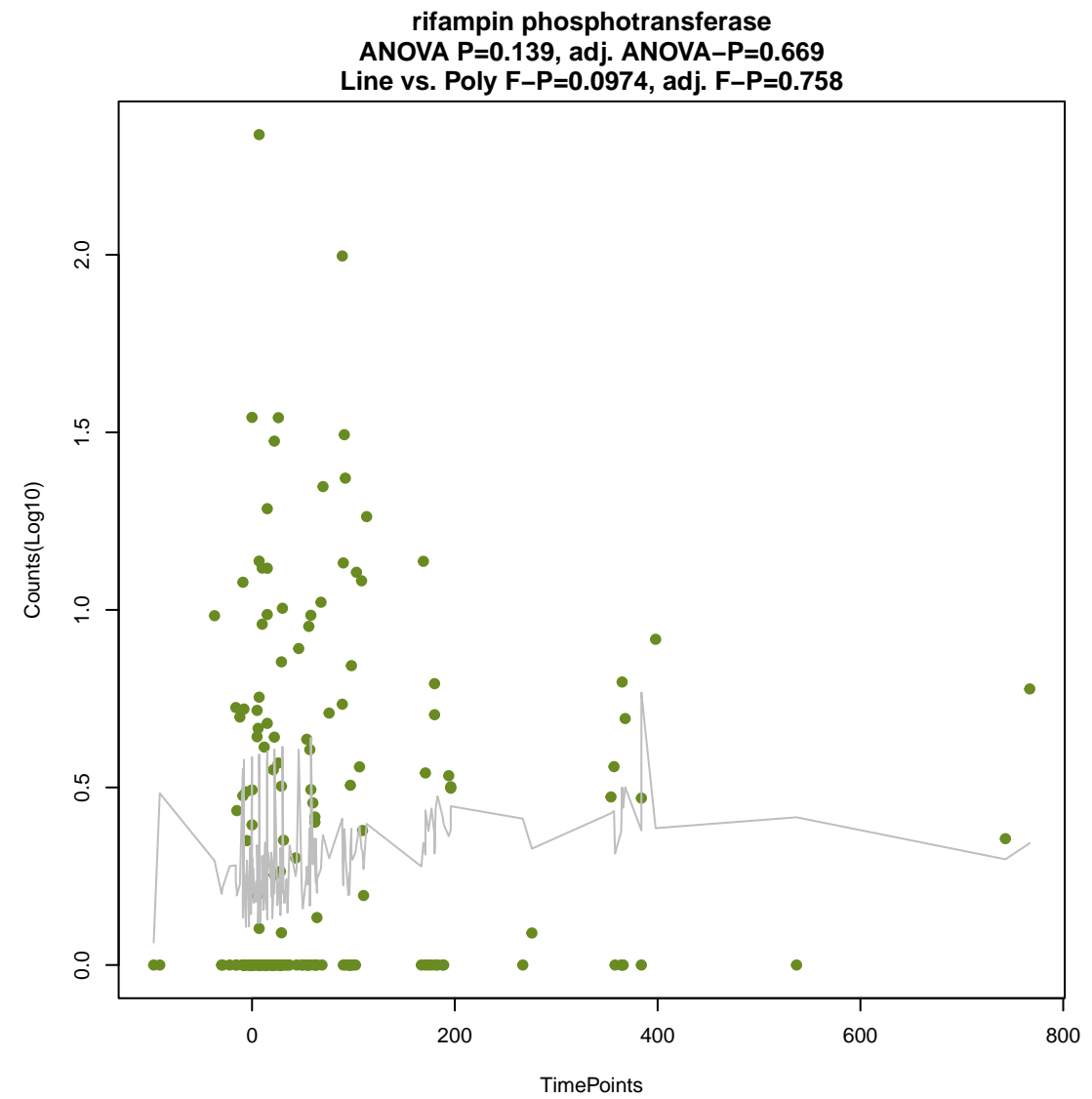
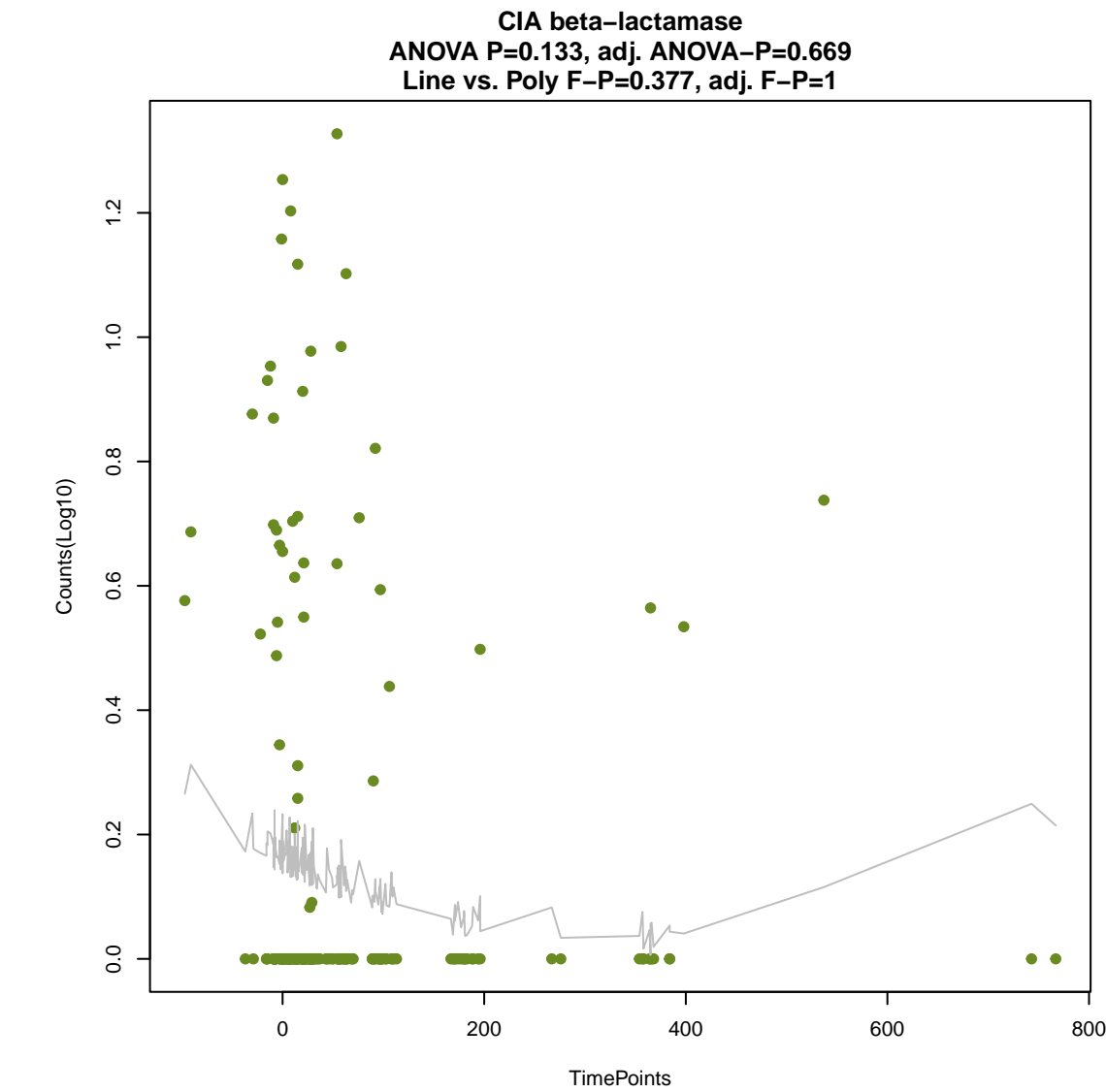
major facilitator superfamily (MFS) antibiotic efflux pump

ANOVA P=0.0752, adj. ANOVA–P=0.65

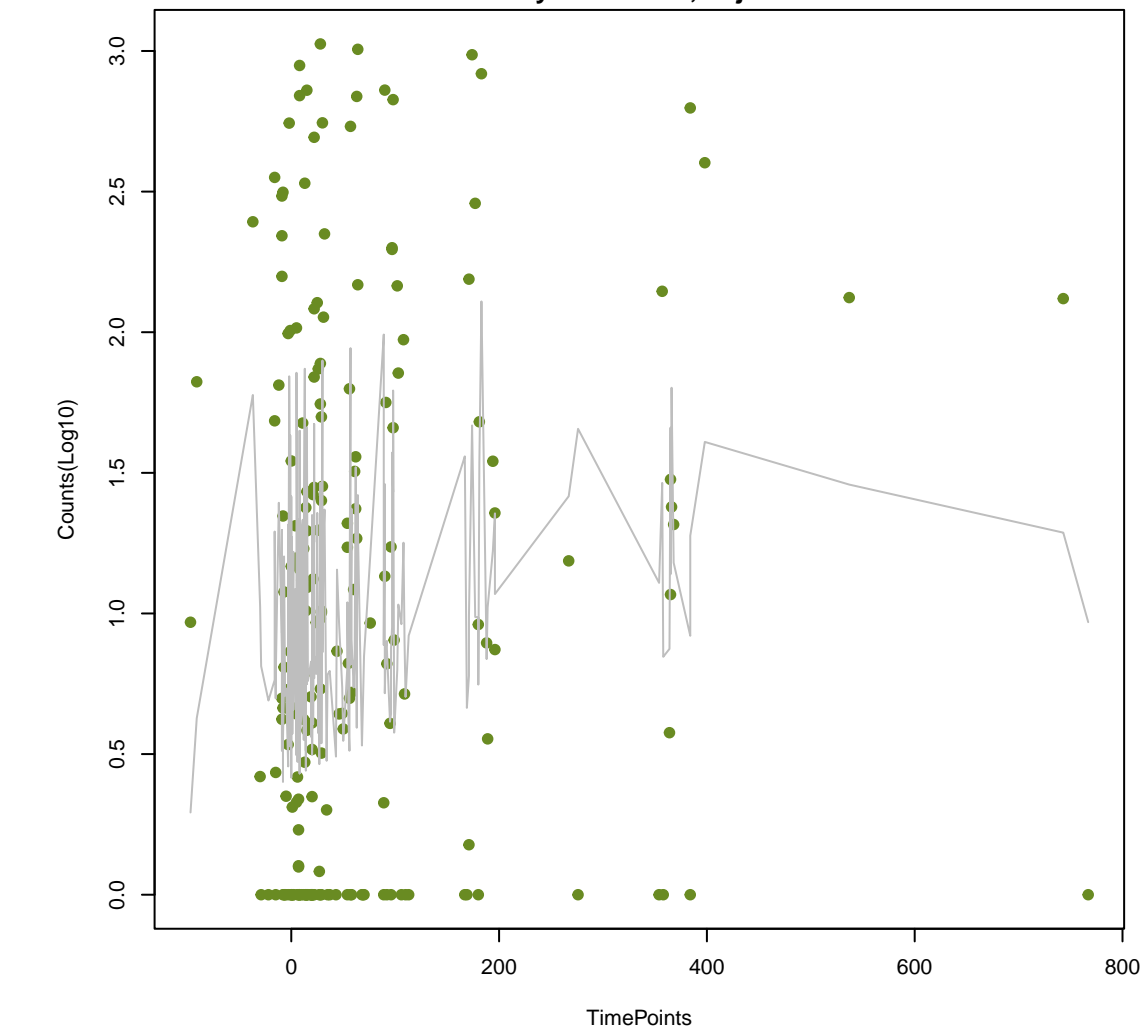
Line vs. Poly F–P=0.847, adj. F–P=1



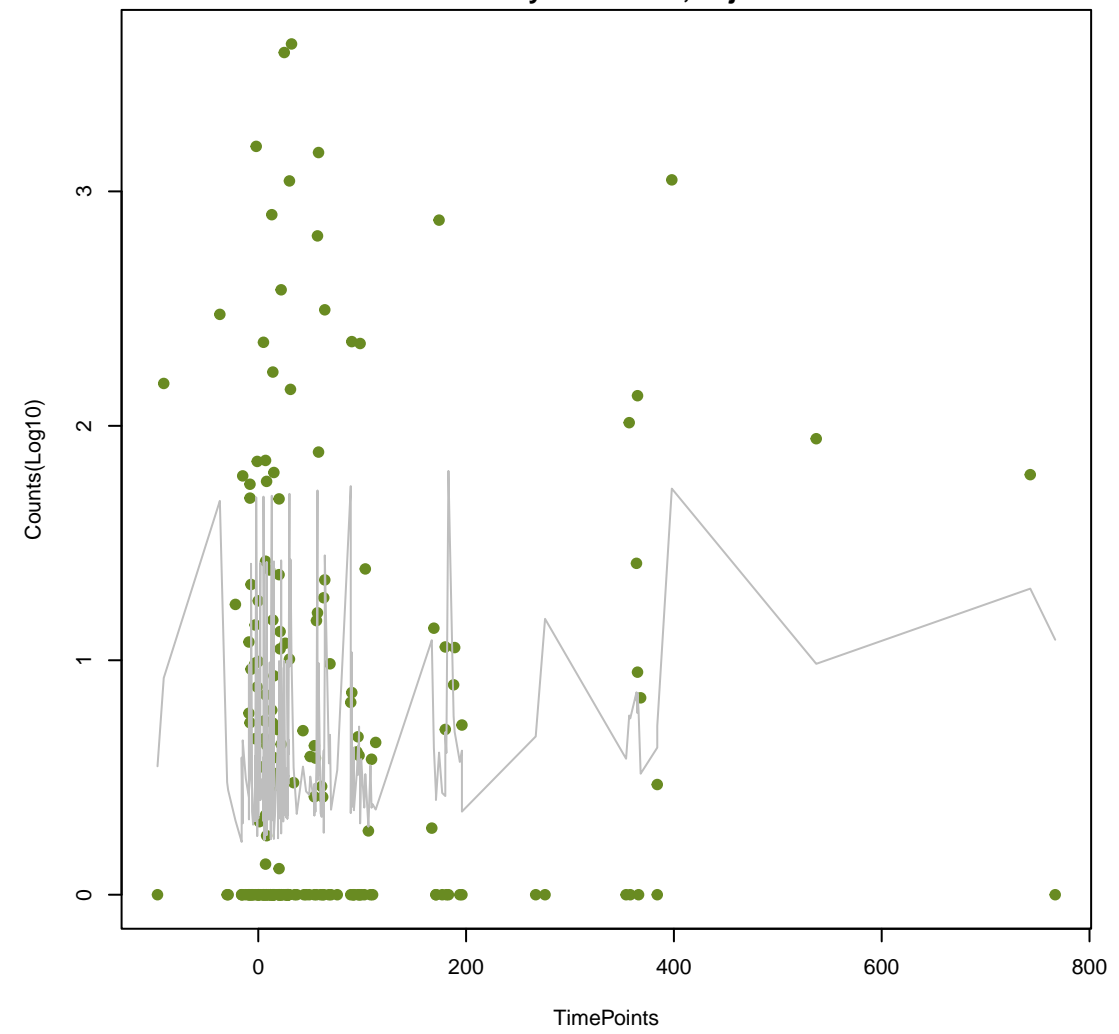




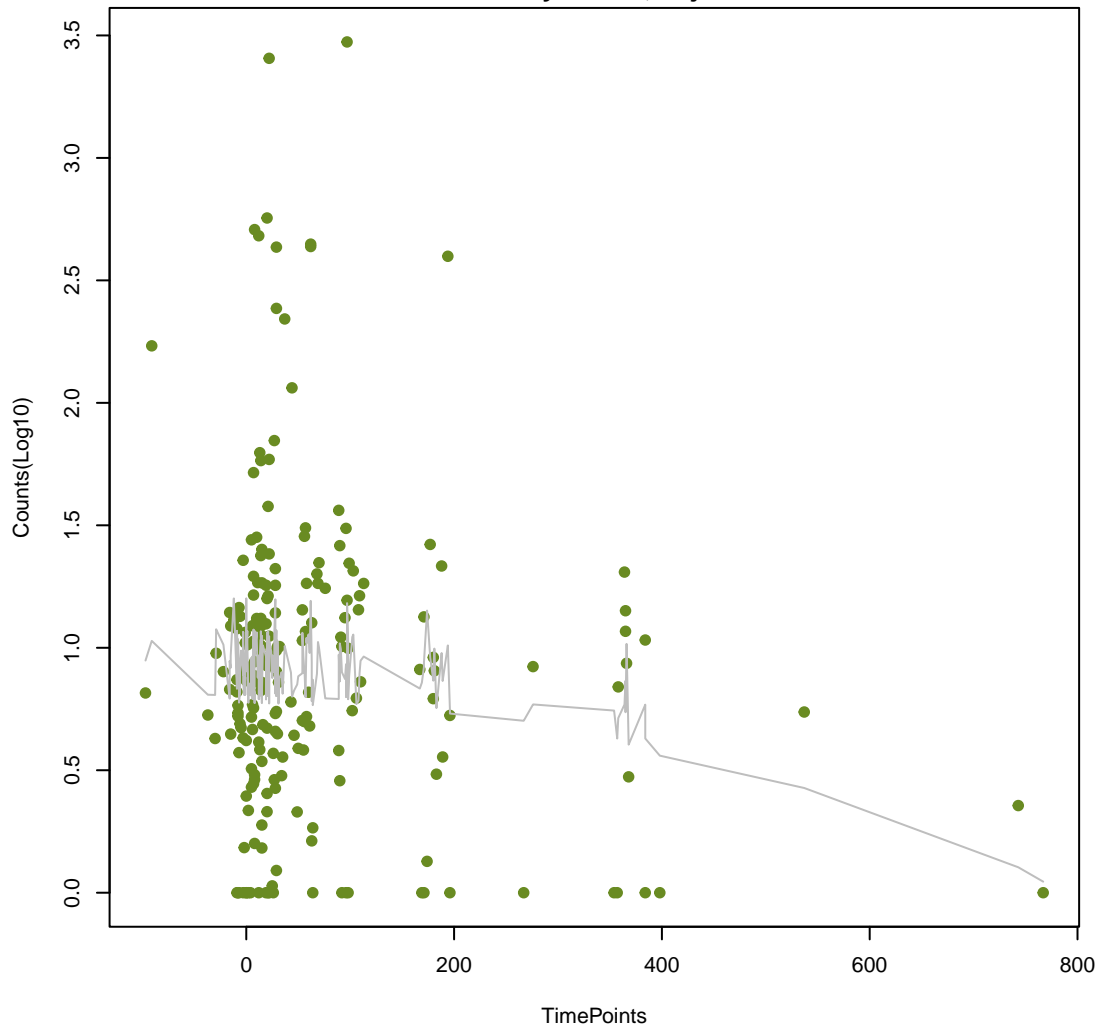
**ic efflux pump;major facilitator superfamily (MFS) antibiotic efflux pump;resistance-nodula**  
ANOVA P=0.149, adj. ANOVA-P=0.669  
Line vs. Poly F-P=0.219, adj. F-P=0.988



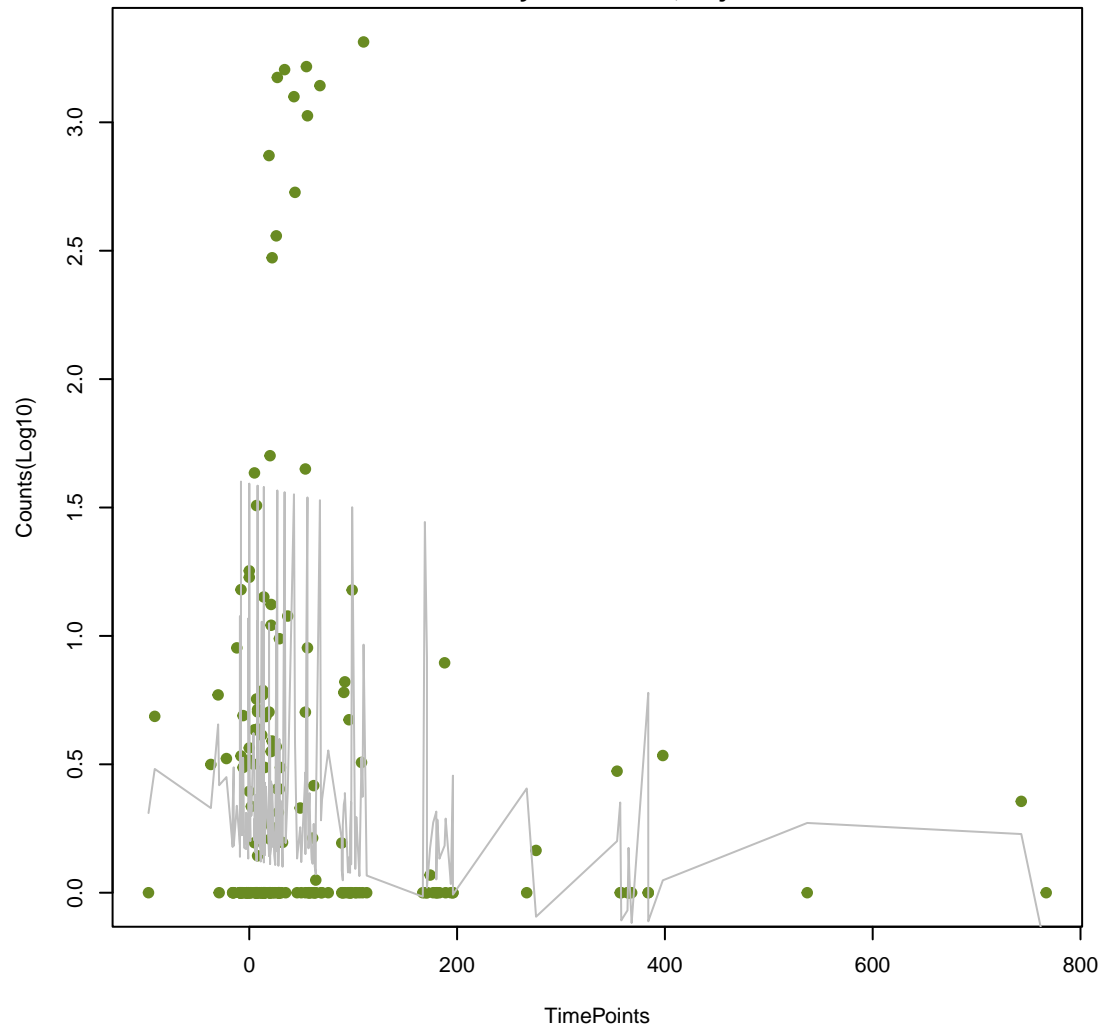
**APH(6)**  
ANOVA P=0.152, adj. ANOVA-P=0.669  
Line vs. Poly F-P=0.739, adj. F-P=1



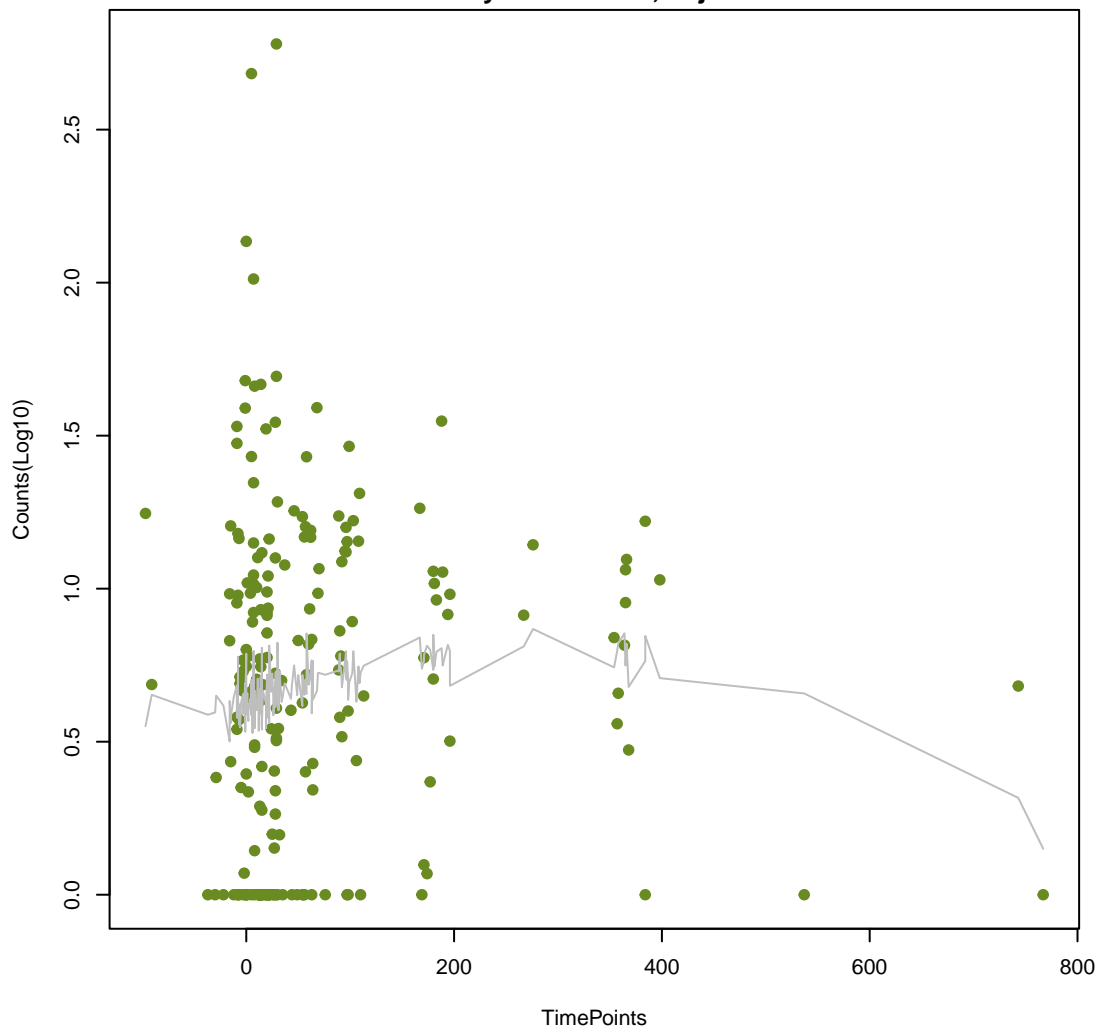
**ACT beta-lactamase**  
ANOVA P=0.154, adj. ANOVA-P=0.669  
Line vs. Poly F-P=1, adj. F-P=1



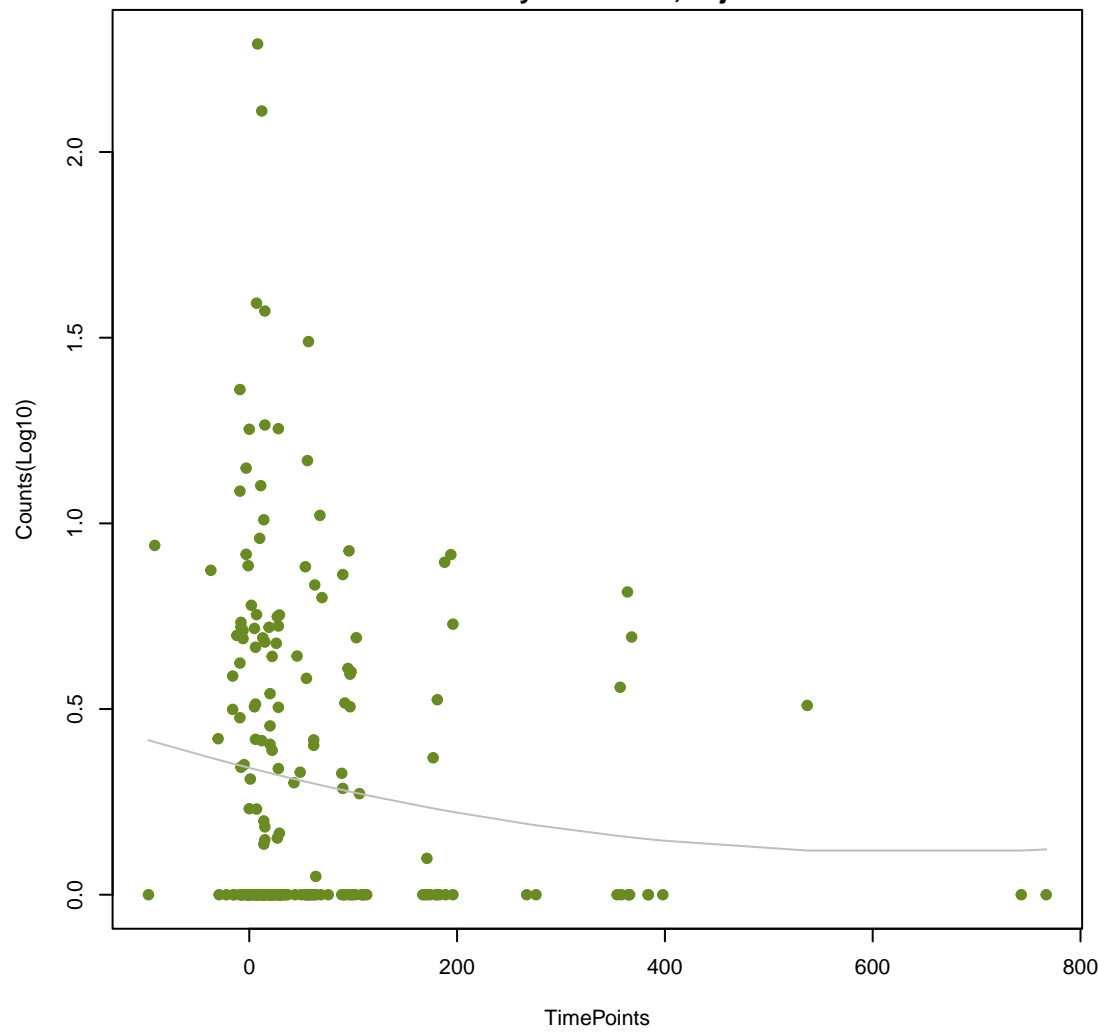
**ANT(4')**  
ANOVA P=0.163, adj. ANOVA-P=0.685  
Line vs. Poly F-P=0.609, adj. F-P=1



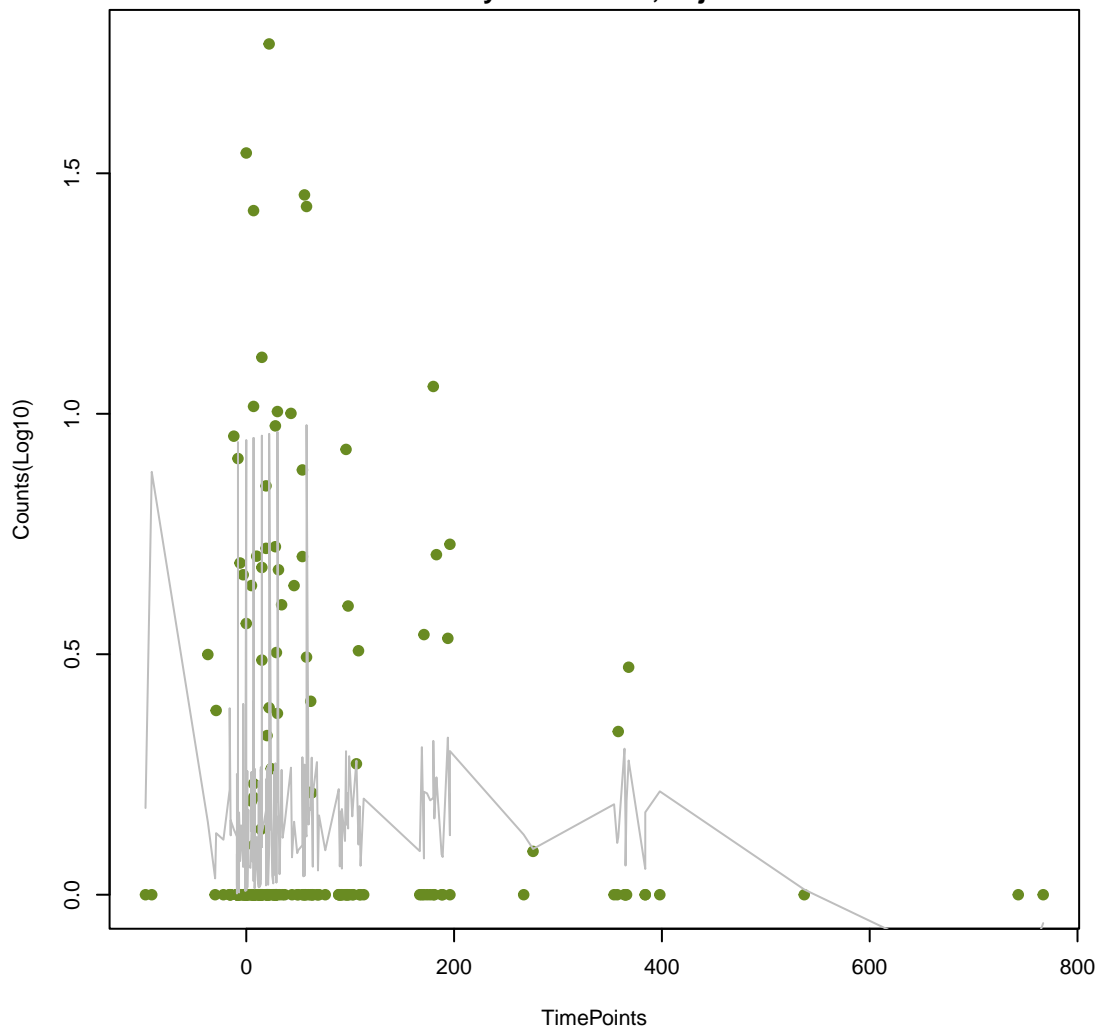
**PDC beta-lactamase**  
ANOVA P=0.182, adj. ANOVA-P=0.706  
Line vs. Poly F-P=0.0622, adj. F-P=0.616



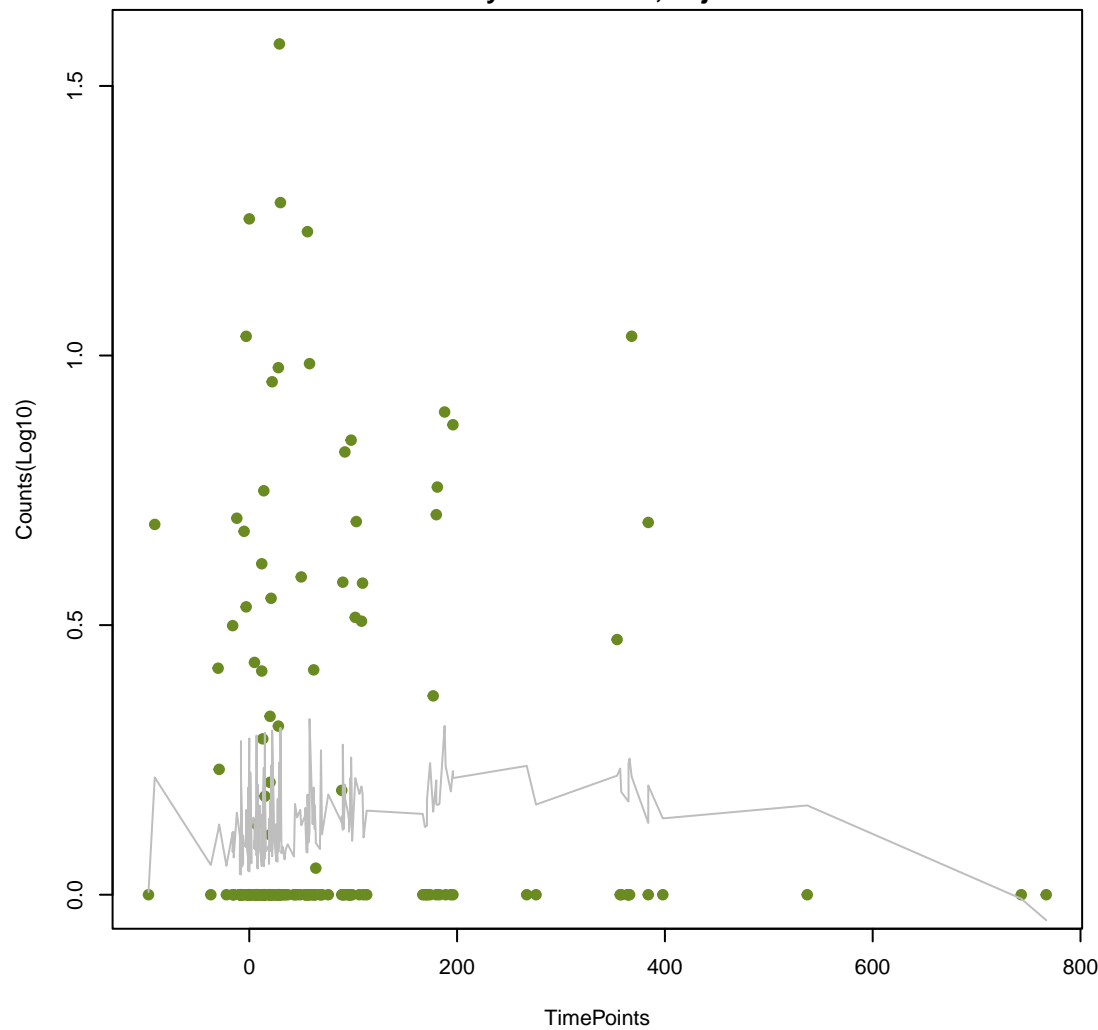
**sal-type ABC-F protein**  
ANOVA P=0.184, adj. ANOVA-P=0.706  
Line vs. Poly F-P=0.589, adj. F-P=1



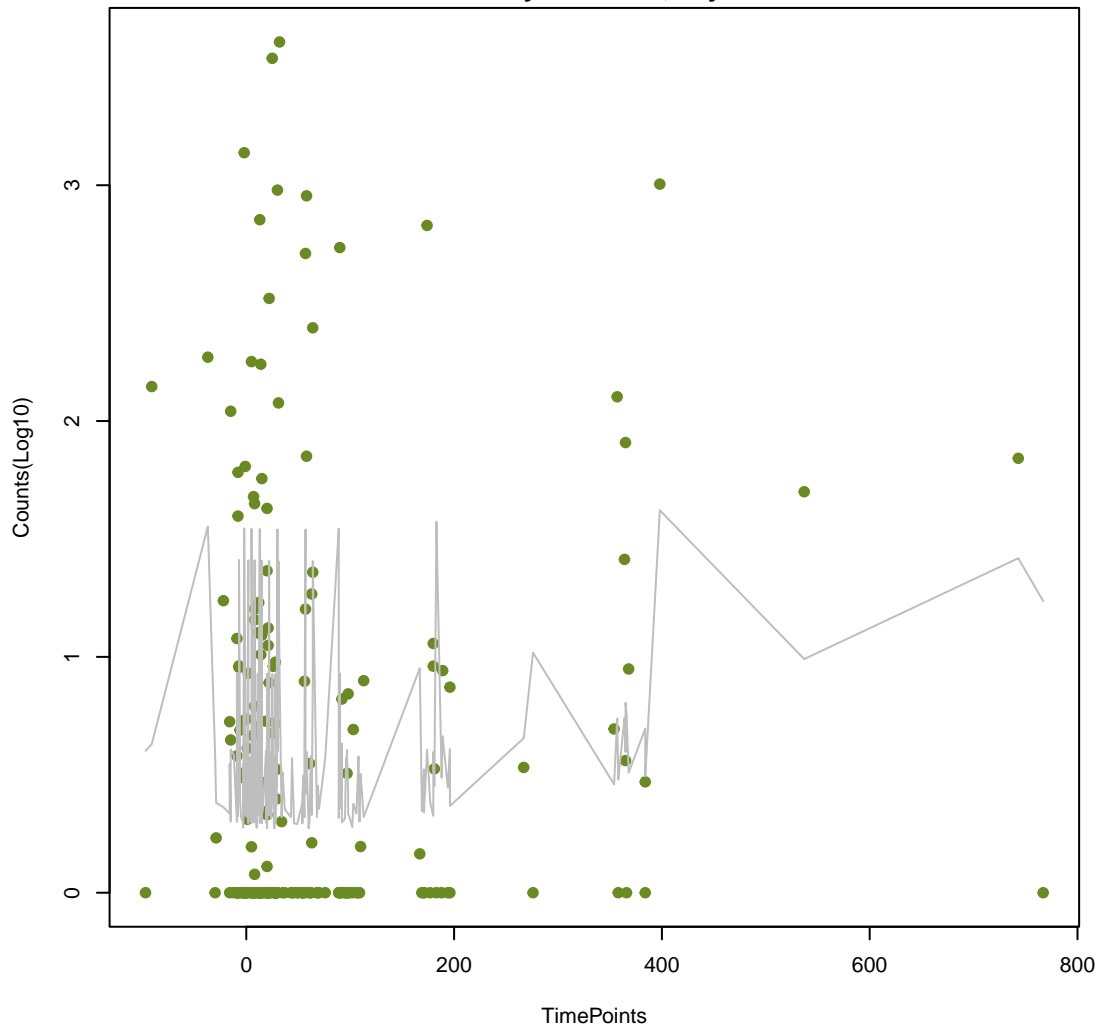
**Bah amidohydrolase**  
ANOVA P=0.19, adj. ANOVA-P=0.706  
Line vs. Poly F-P=0.0224, adj. F-P=0.423



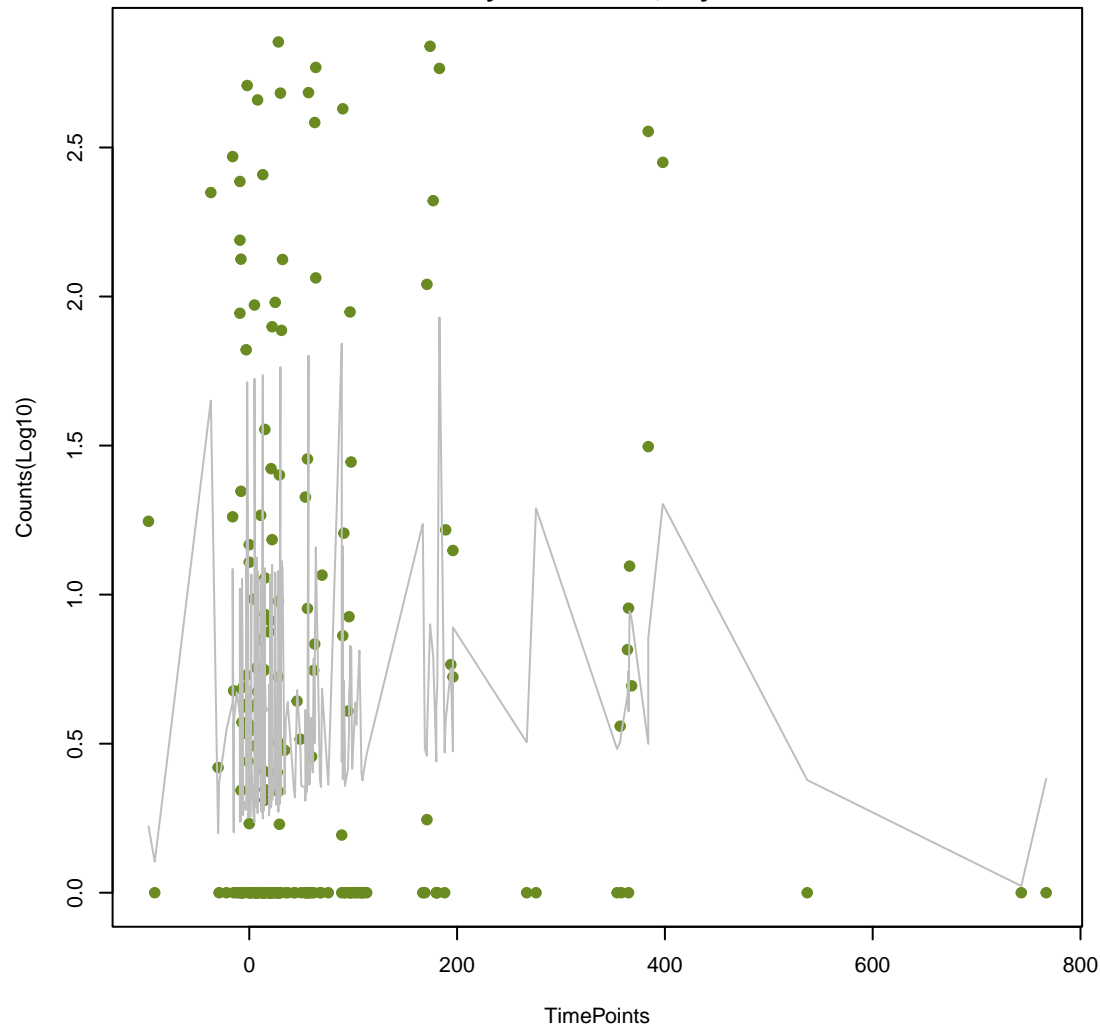
**class C LRA beta-lactamase**  
ANOVA P=0.195, adj. ANOVA-P=0.706  
Line vs. Poly F-P=0.0272, adj. F-P=0.423



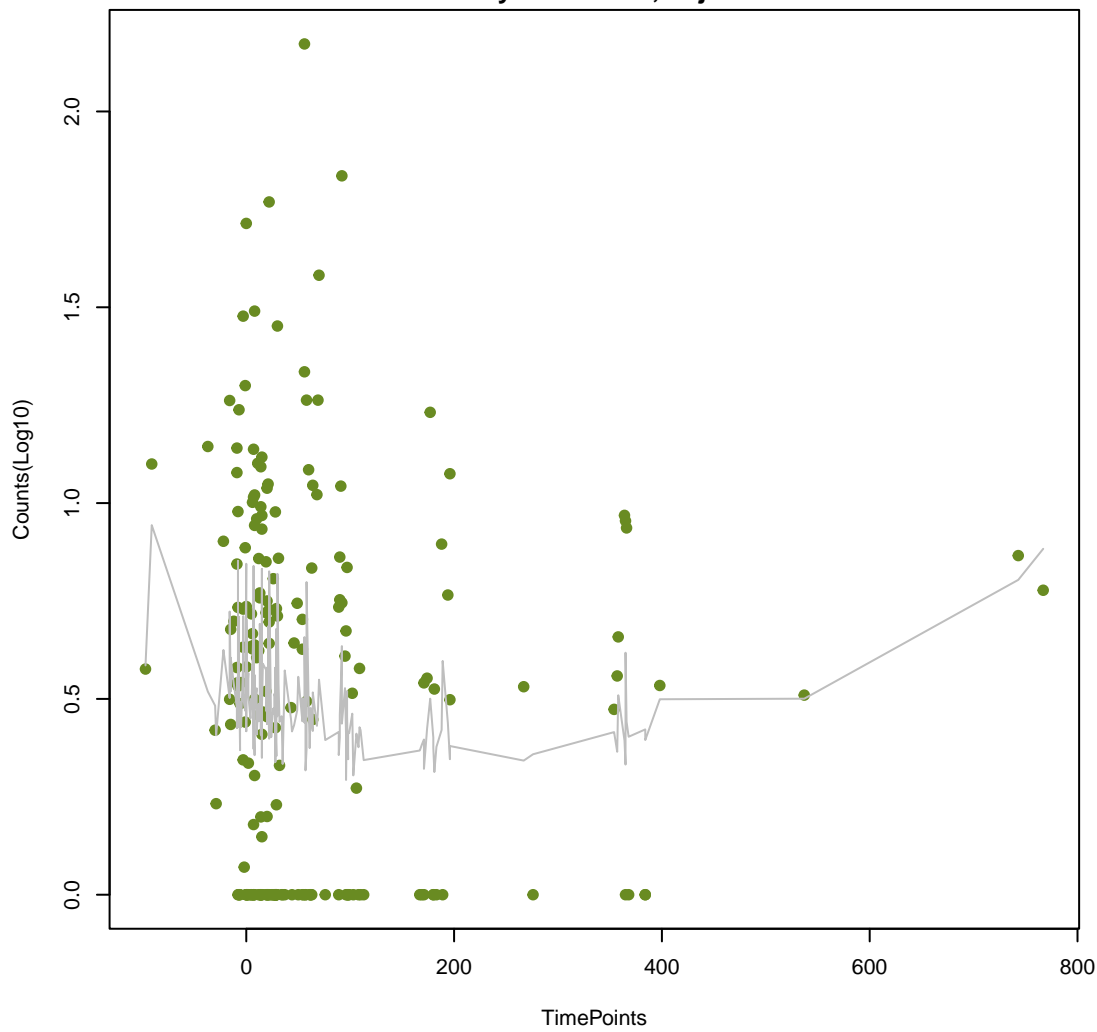
**APH(3")**  
ANOVA P=0.201, adj. ANOVA-P=0.706  
Line vs. Poly F-P=0.33, adj. F-P=1



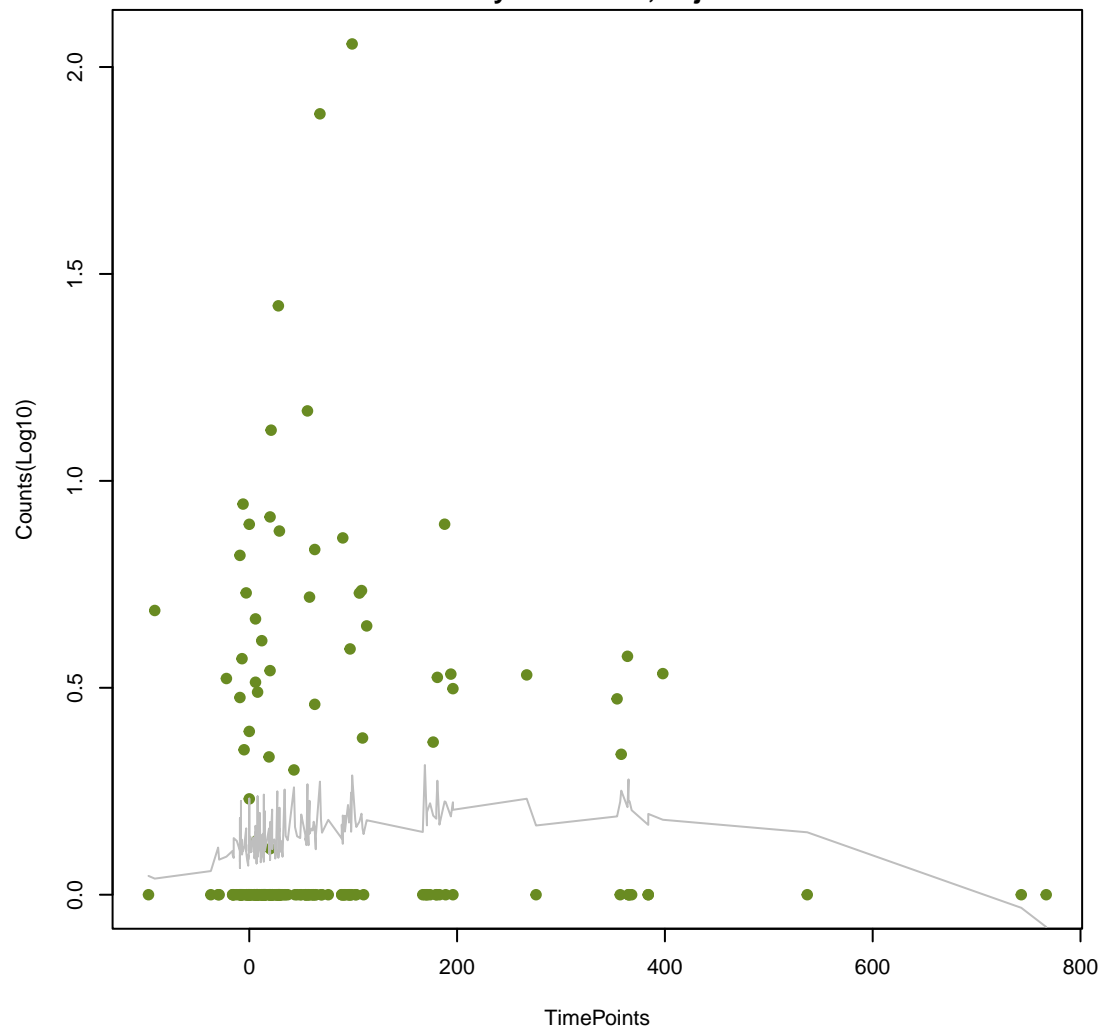
**EC beta-lactamase**  
ANOVA P=0.223, adj. ANOVA-P=0.755  
Line vs. Poly F-P=0.0789, adj. F-P=0.661



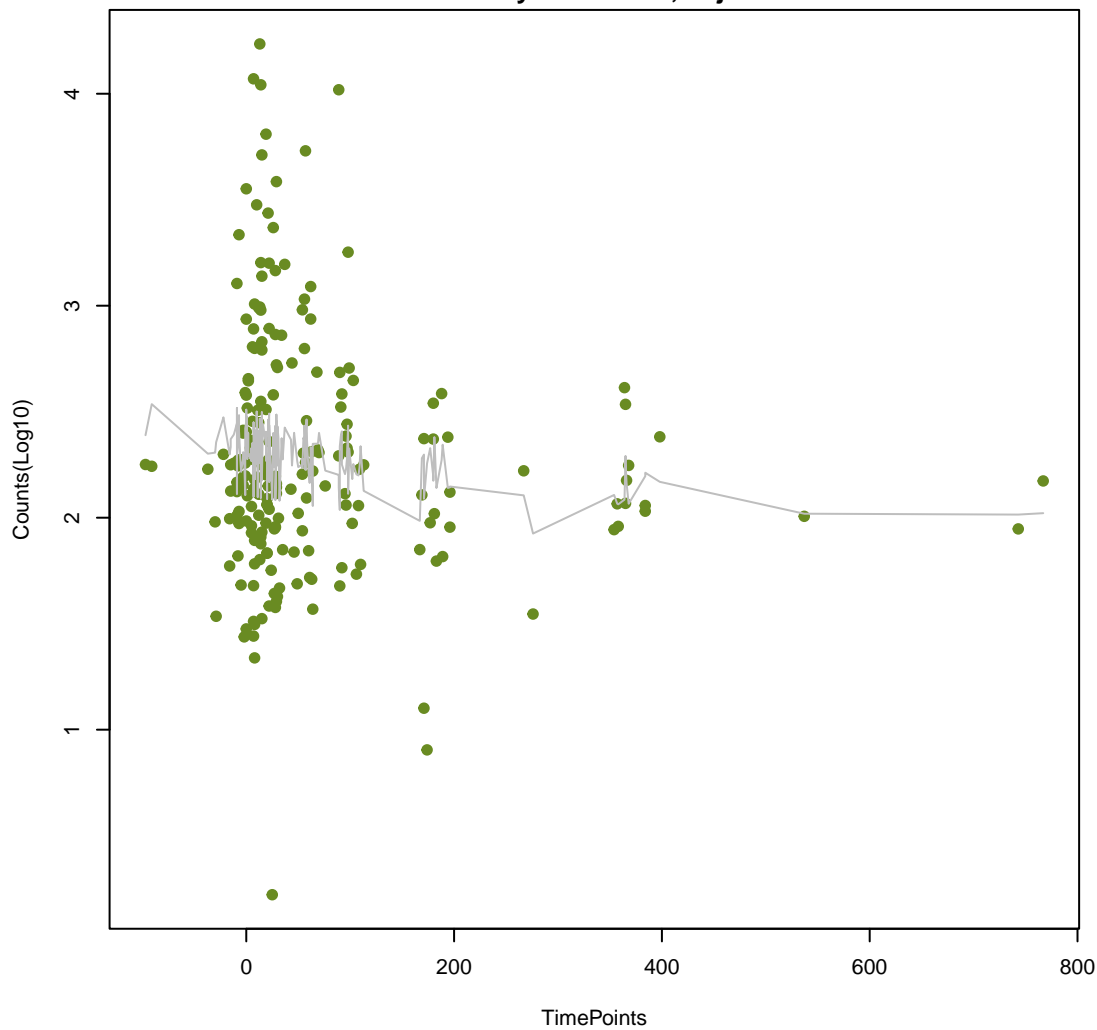
**16S rRNA methyltransferase (G1405)**  
ANOVA P=0.228, adj. ANOVA-P=0.755  
Line vs. Poly F-P=0.153, adj. F-P=0.98



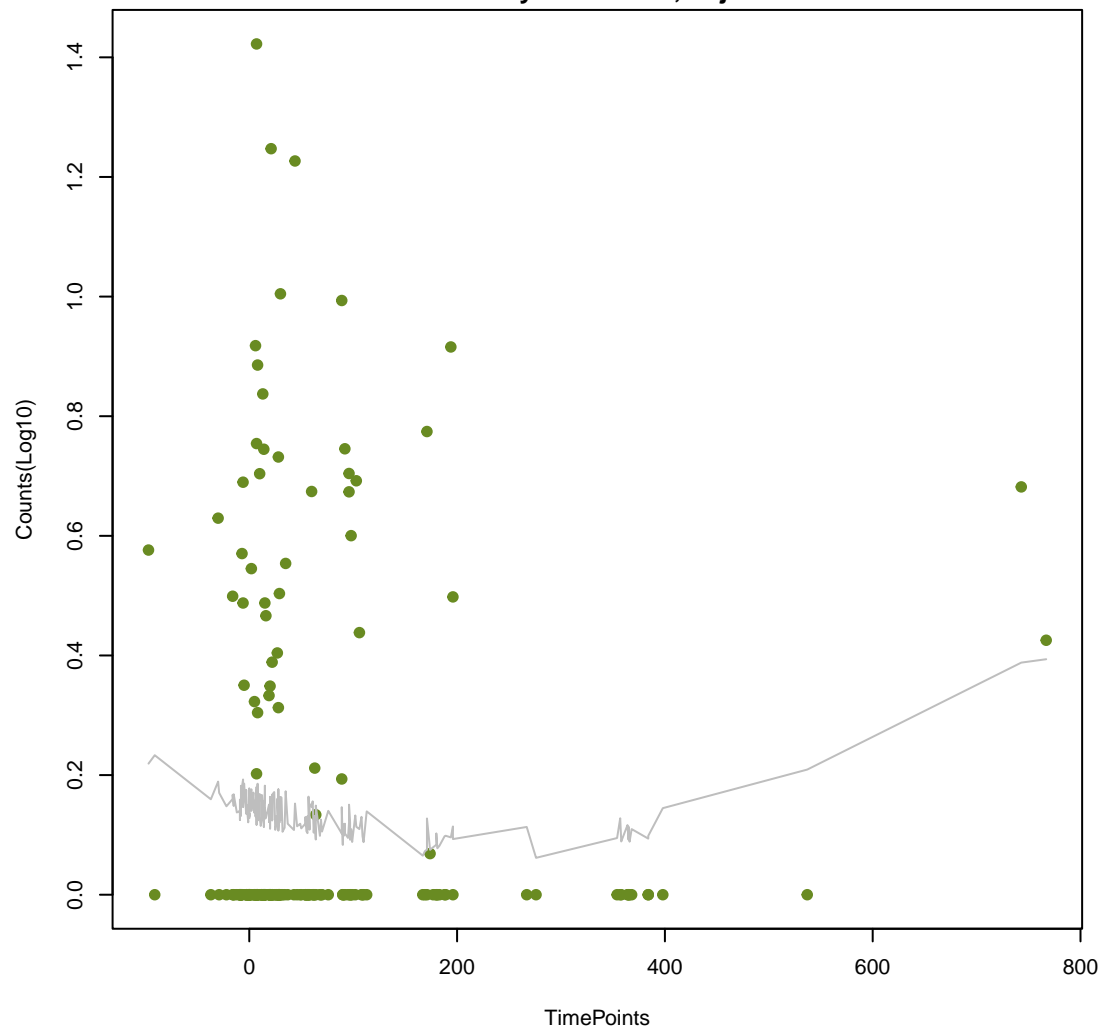
**PME beta-lactamase**  
ANOVA P=0.252, adj. ANOVA-P=0.806  
Line vs. Poly F-P=0.182, adj. F-P=0.988



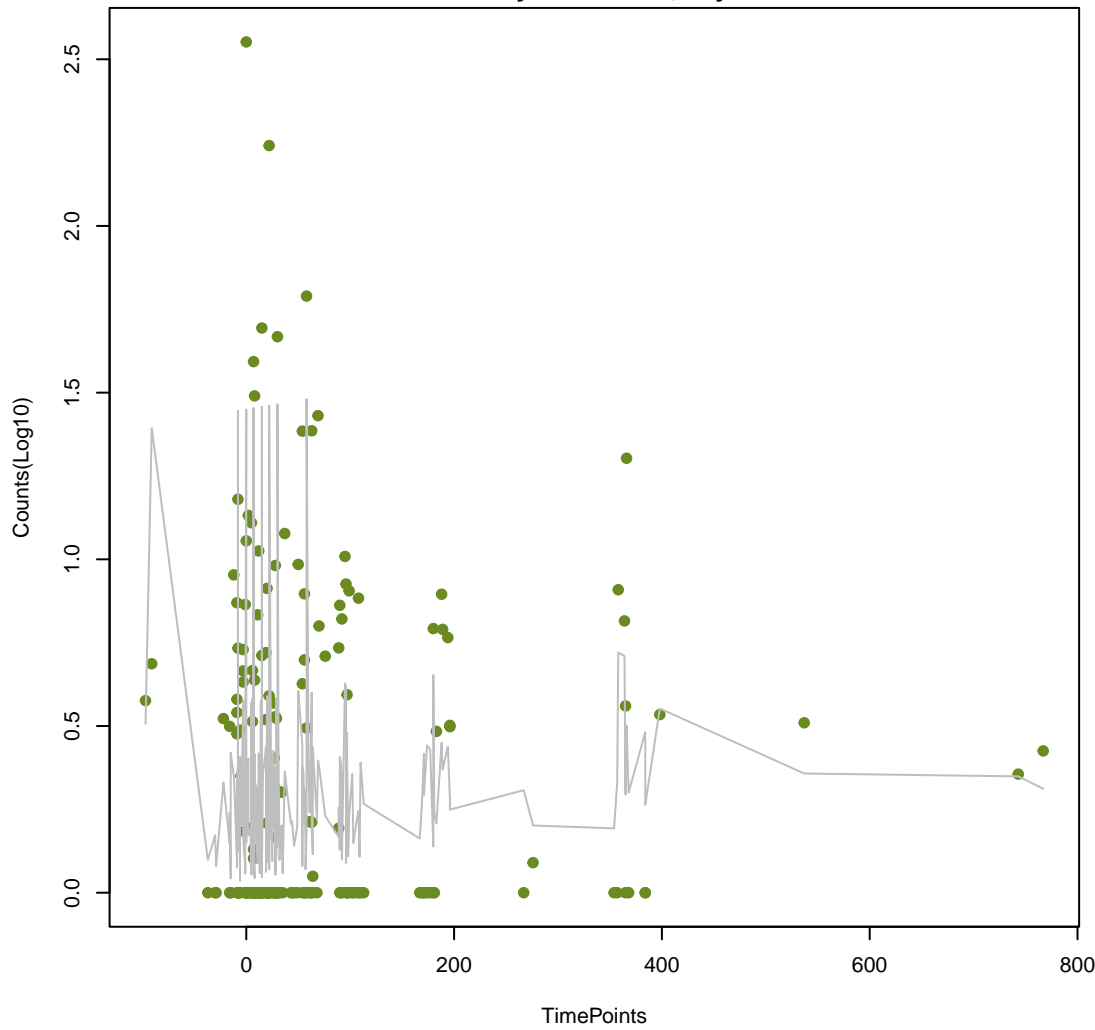
**Bleomycin resistant protein**  
ANOVA P=0.259, adj. ANOVA-P=0.806  
Line vs. Poly F-P=0.572, adj. F-P=1



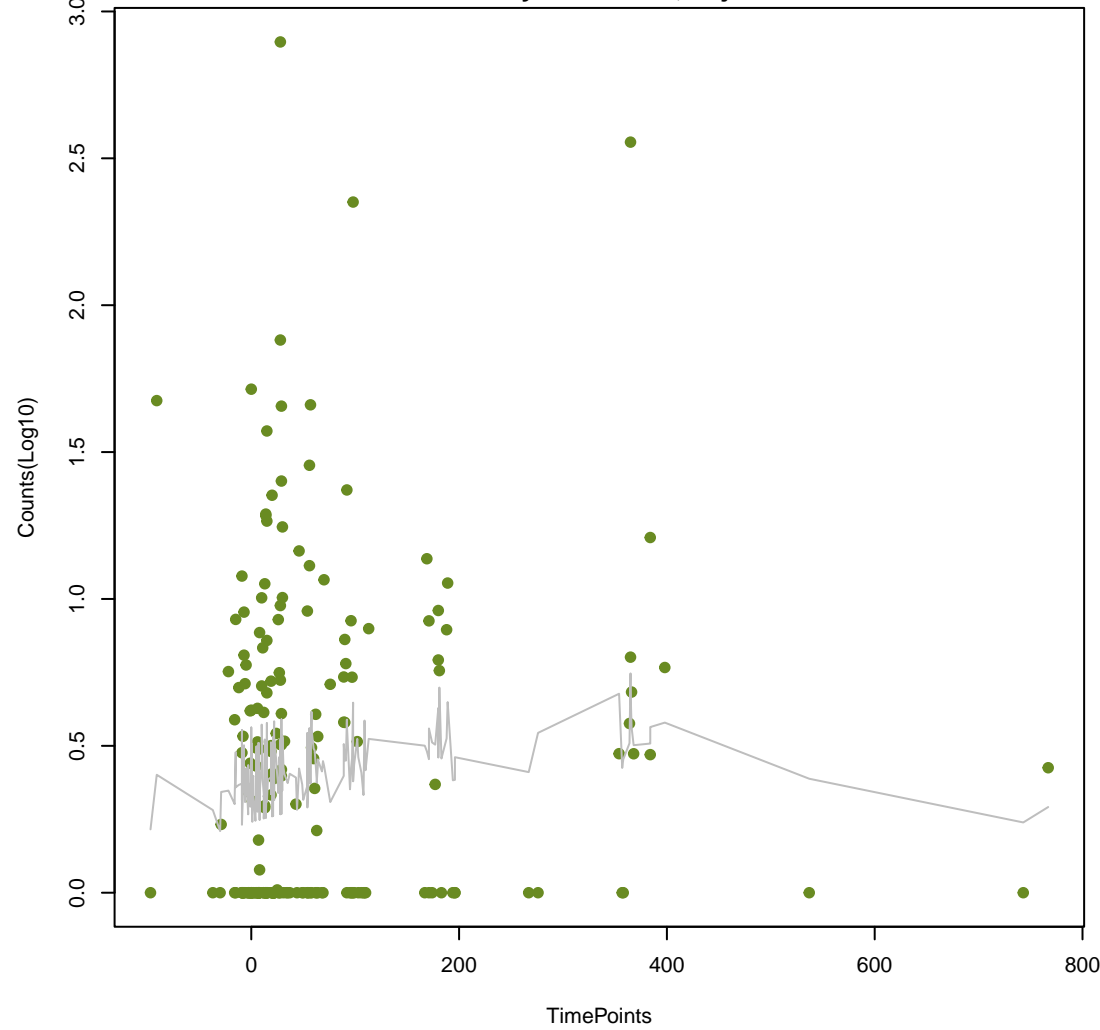
**Target protecting FusB-type protein conferring resistance to Fusidic acid**  
ANOVA P=0.279, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.741, adj. F-P=1



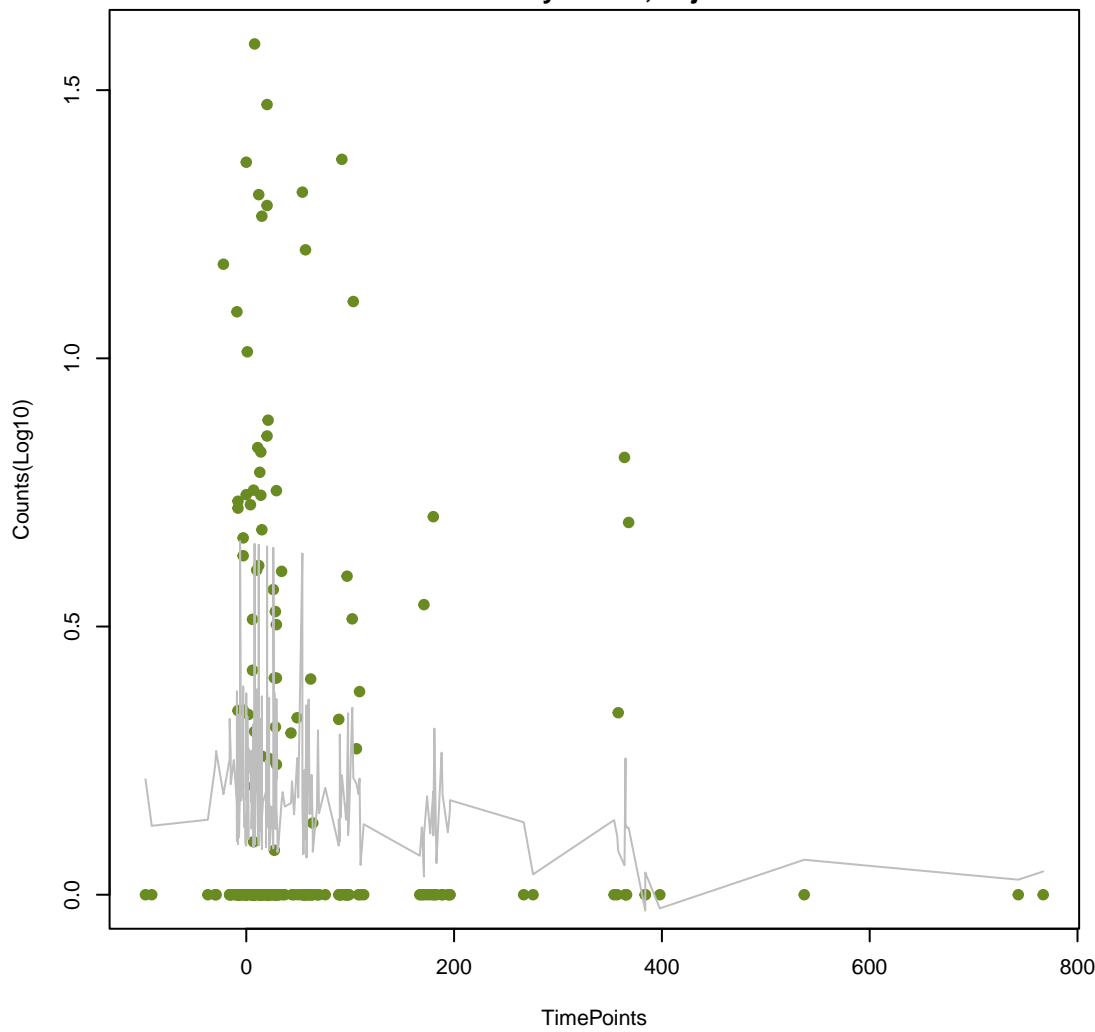
**subclass B3 PEDO beta-lactamase**  
ANOVA P=0.301, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.501, adj. F-P=1



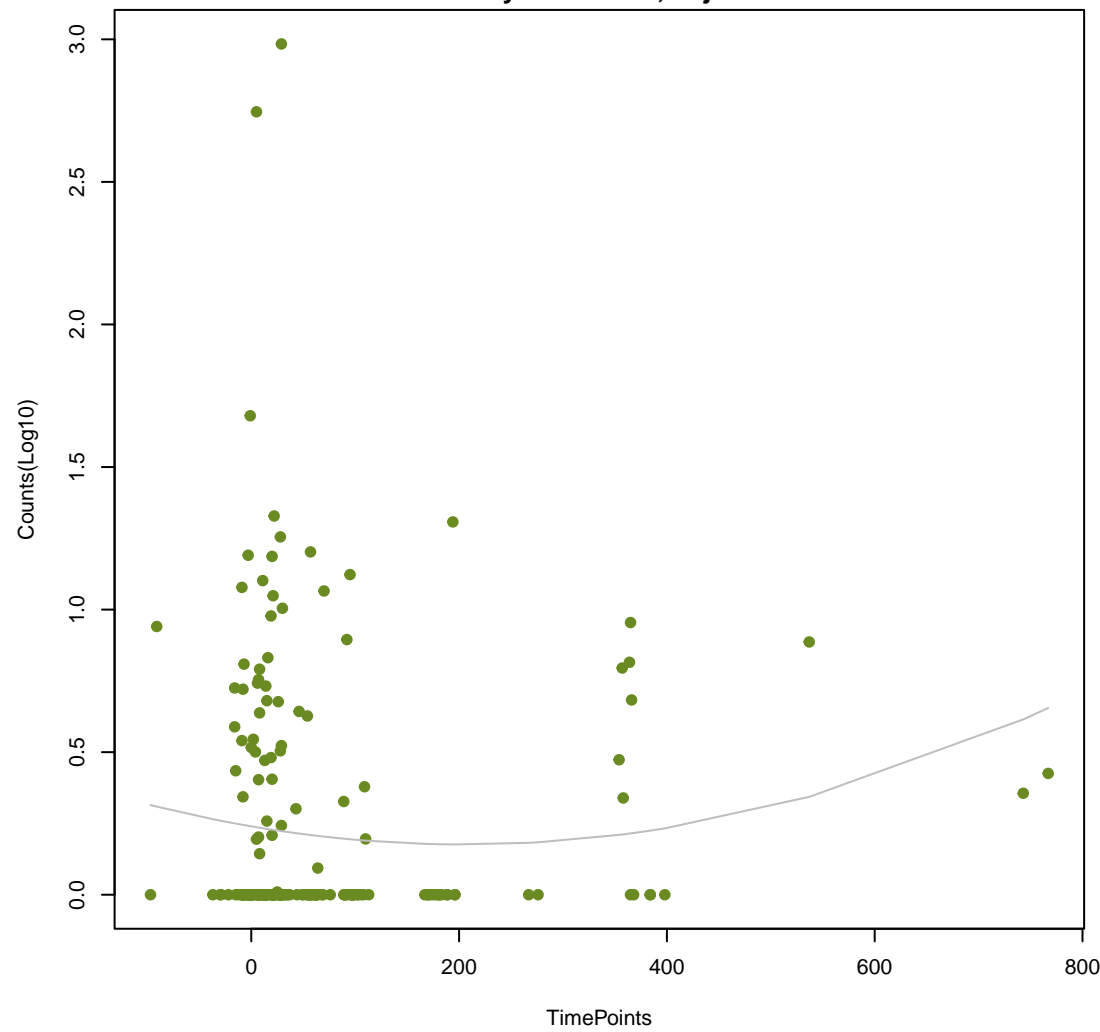
**LEN beta-lactamase**  
ANOVA P=0.302, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.851, adj. F-P=1



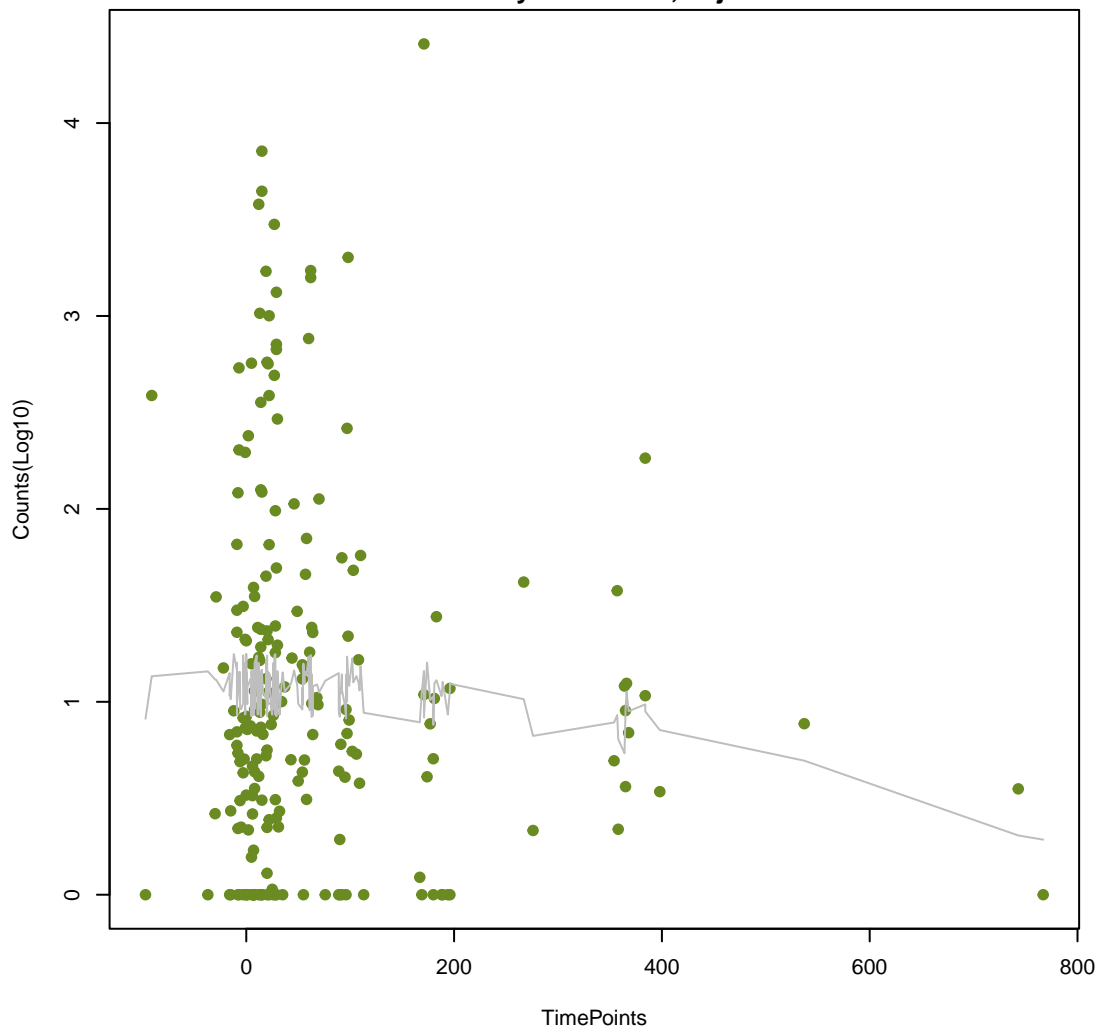
**FOX beta-lactamase**  
ANOVA P=0.331, adj. ANOVA-P=0.844  
Line vs. Poly F-P=1, adj. F-P=1



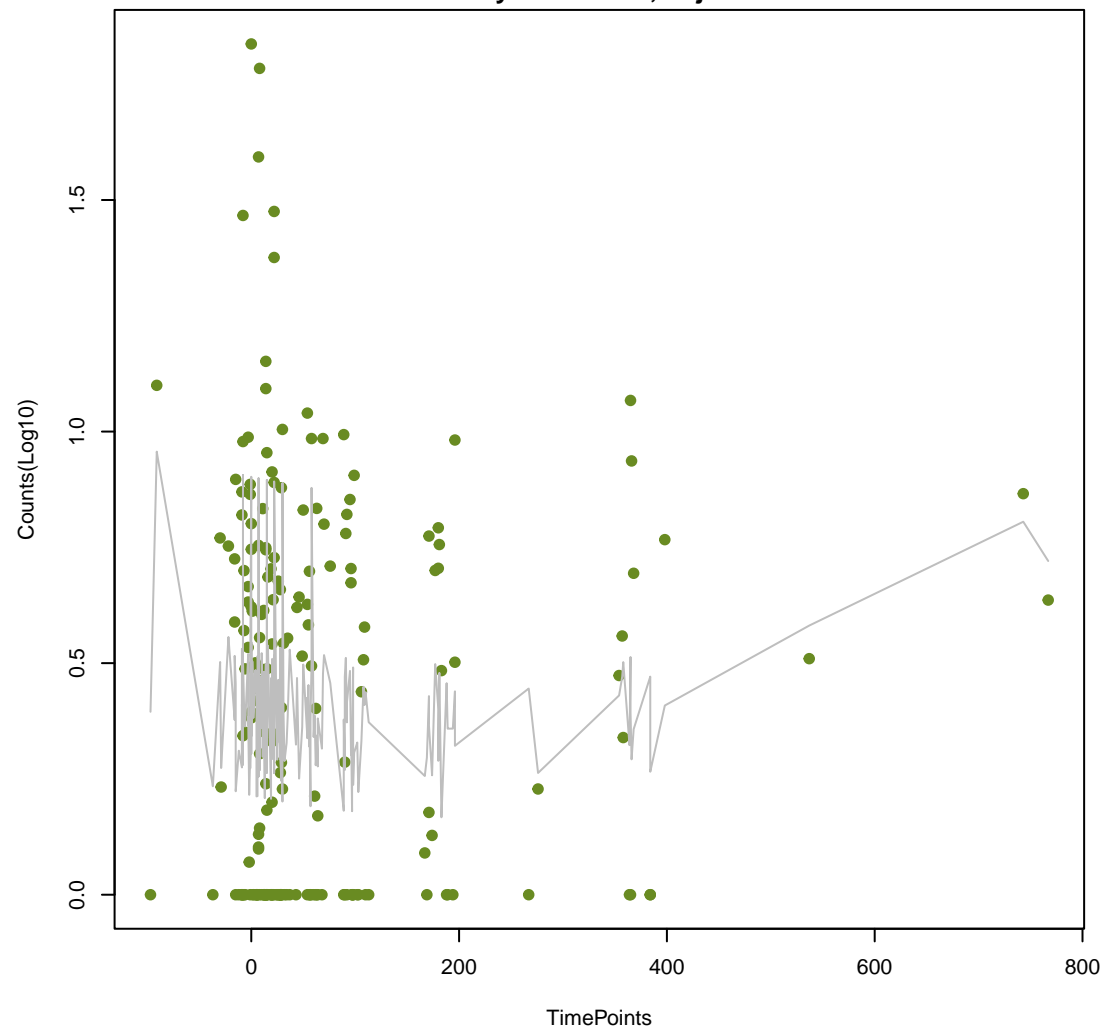
**Outer Membrane Porin (Opr);resistance-nodulation-cell division (RND) antibiotic efflux**  
ANOVA P=0.319, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.151, adj. F-P=0.98



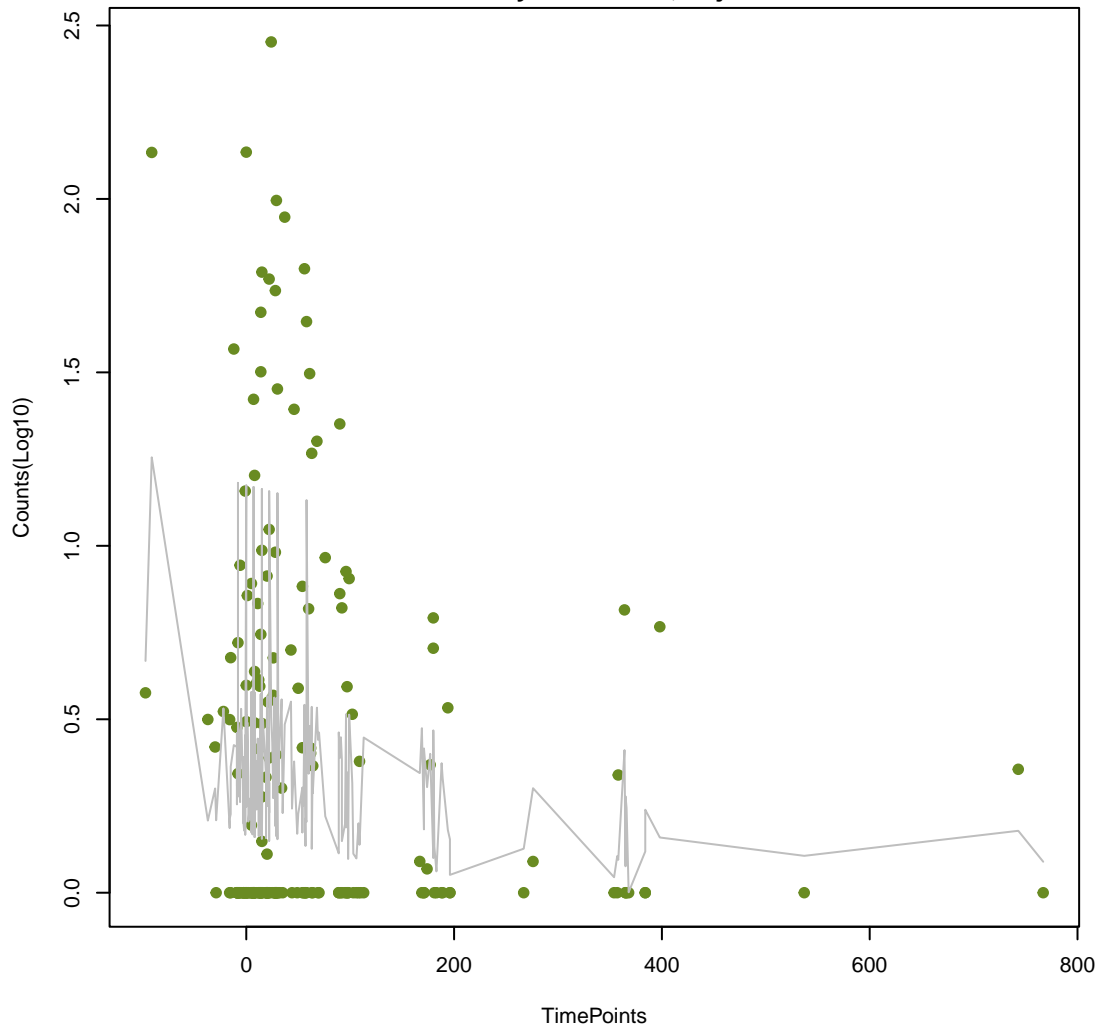
**multidrug and toxic compound extrusion (MATE) transporter**  
ANOVA P=0.339, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.468, adj. F-P=1



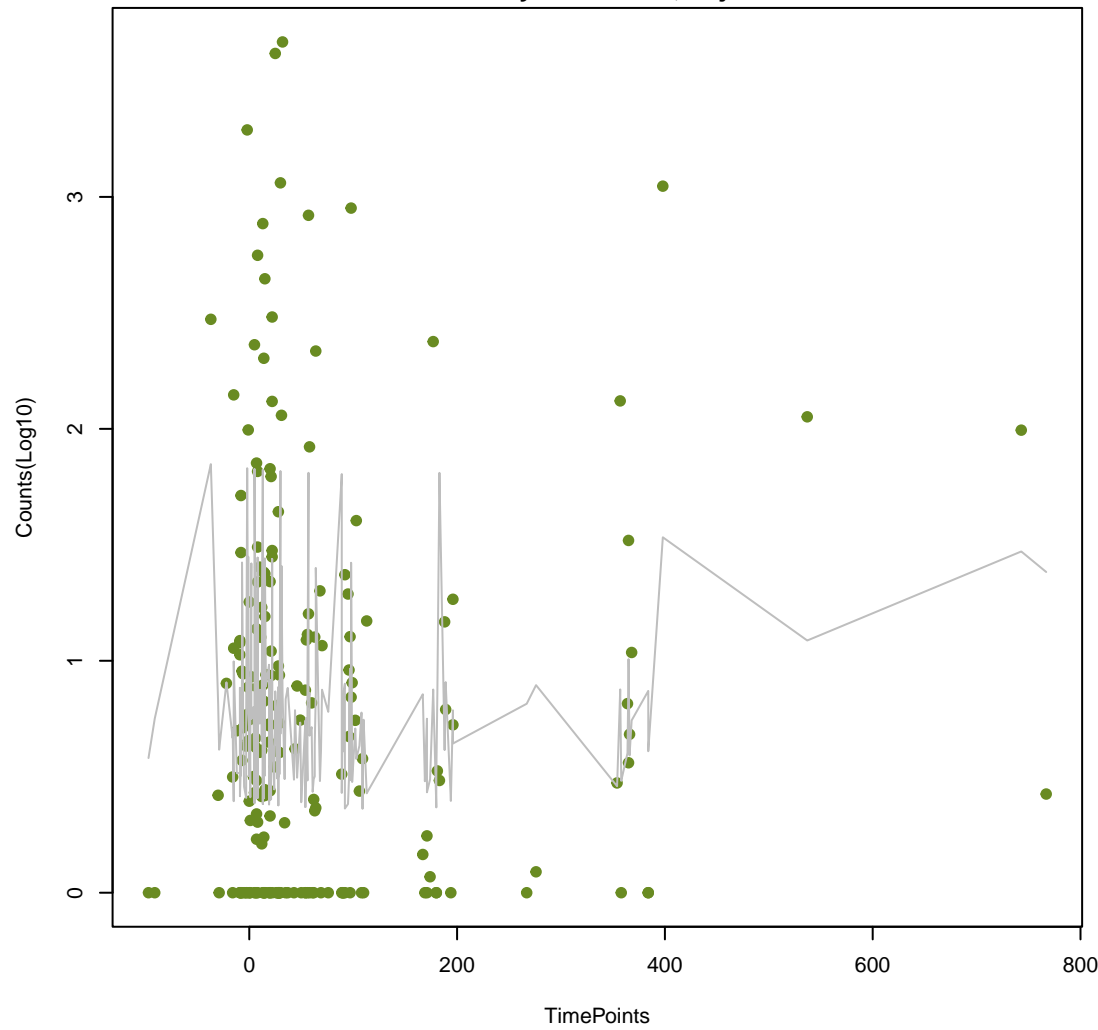
**OCH beta-lactamase**  
ANOVA P=0.345, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.228, adj. F-P=0.988



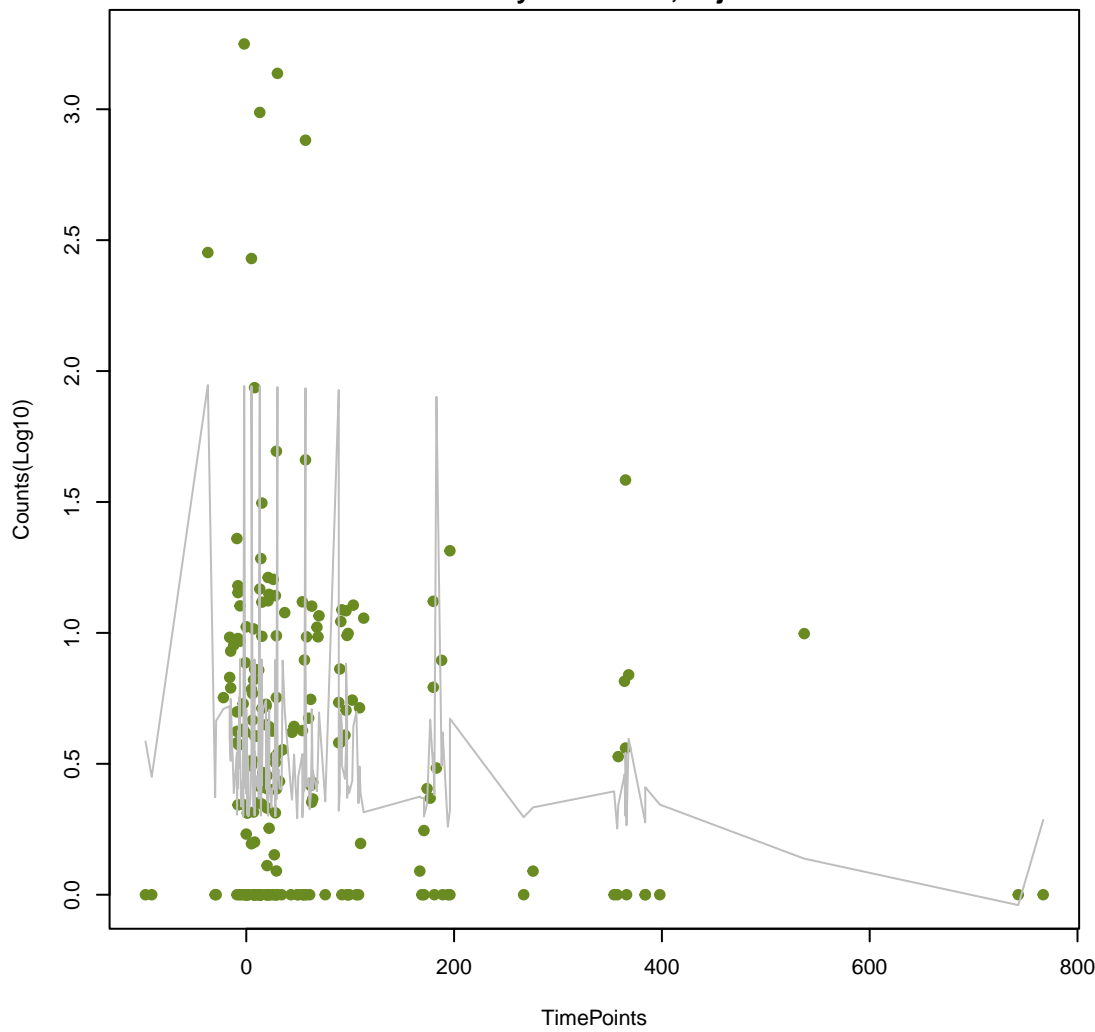
**OXY beta-lactamase**  
ANOVA P=0.348, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.431, adj. F-P=1



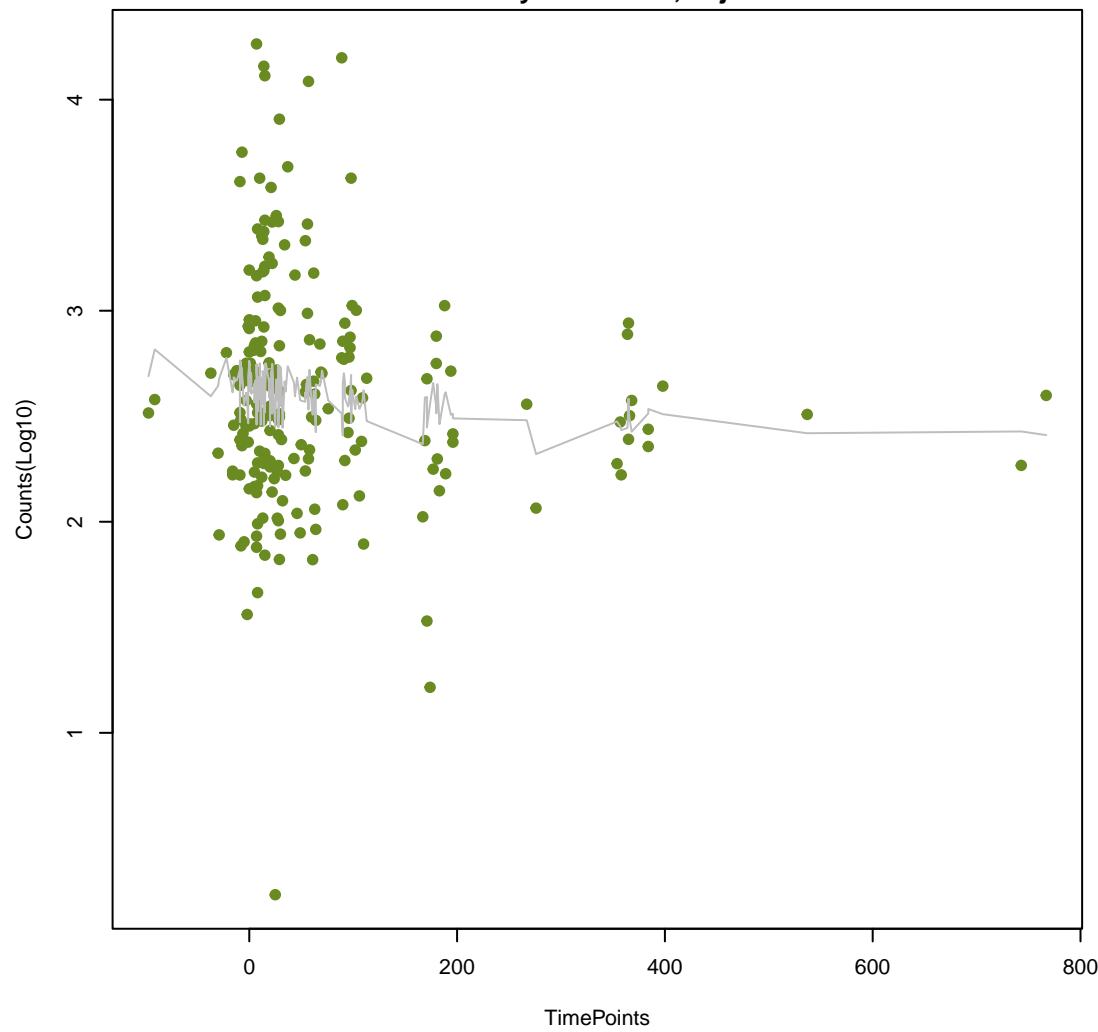
**TEM beta-lactamase**  
ANOVA P=0.365, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.359, adj. F-P=1



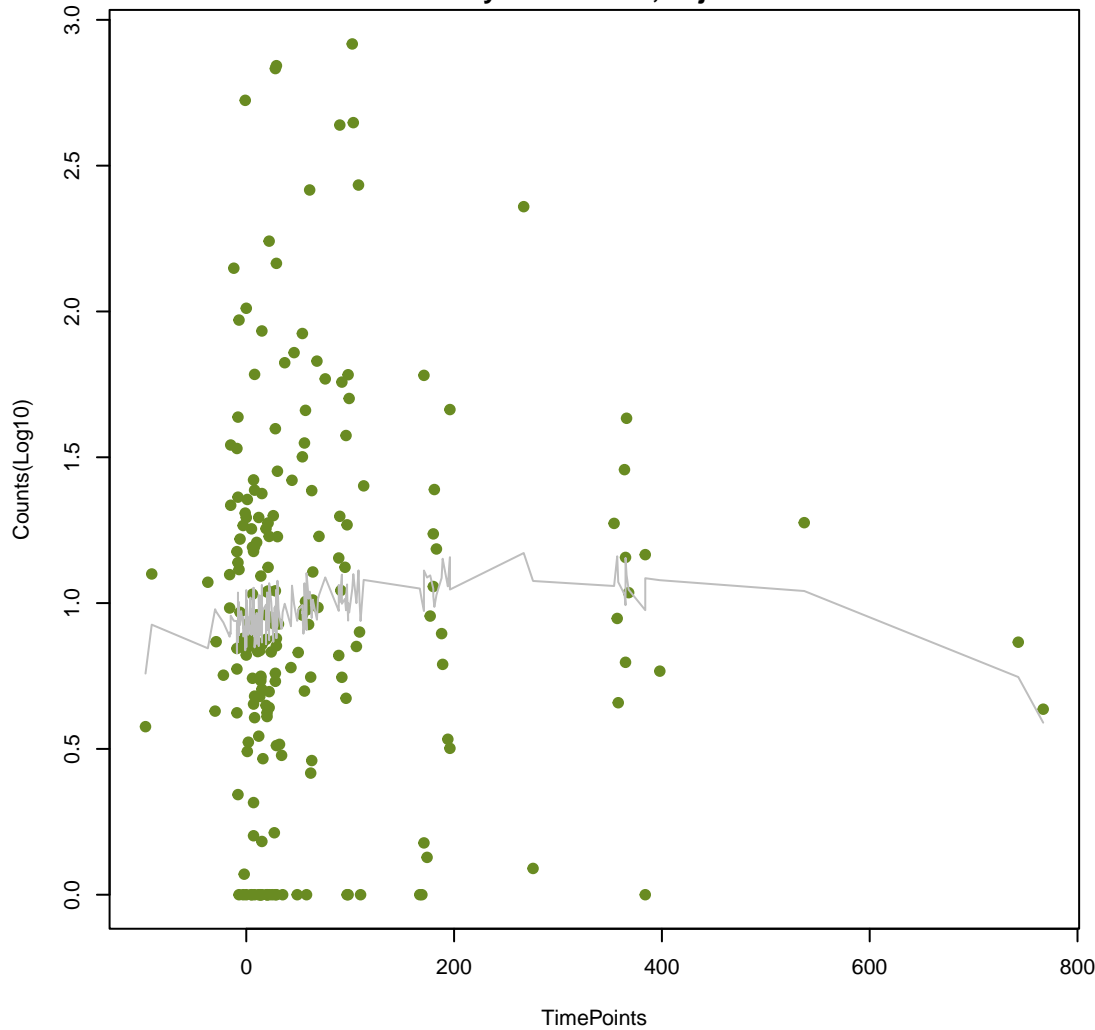
**AAC(3)**  
ANOVA P=0.368, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.586, adj. F-P=1



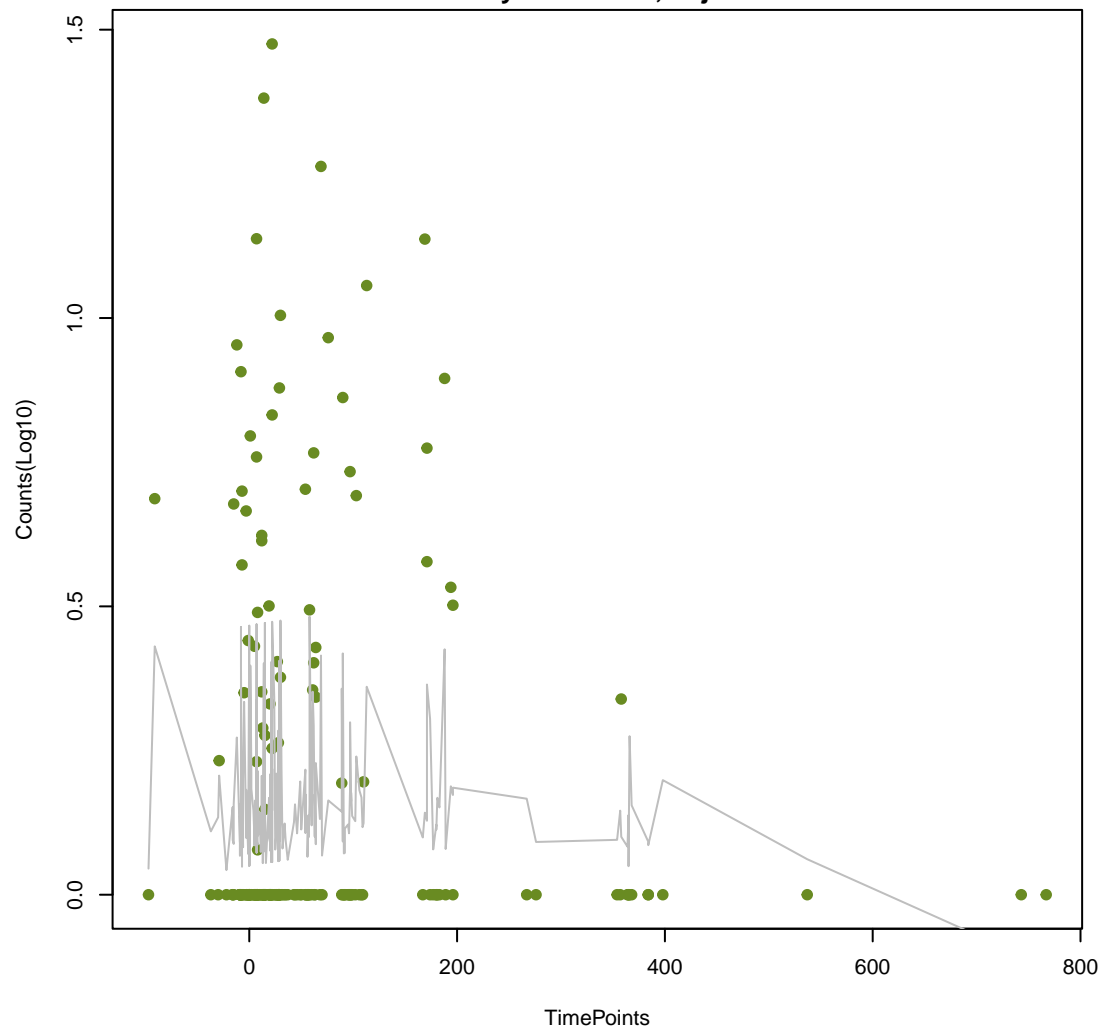
**RbpA bacterial RNA polymerase-binding protein**  
ANOVA P=0.373, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.658, adj. F-P=1



**CMY beta-lactamase**  
ANOVA P=0.375, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.0678, adj. F-P=0.616

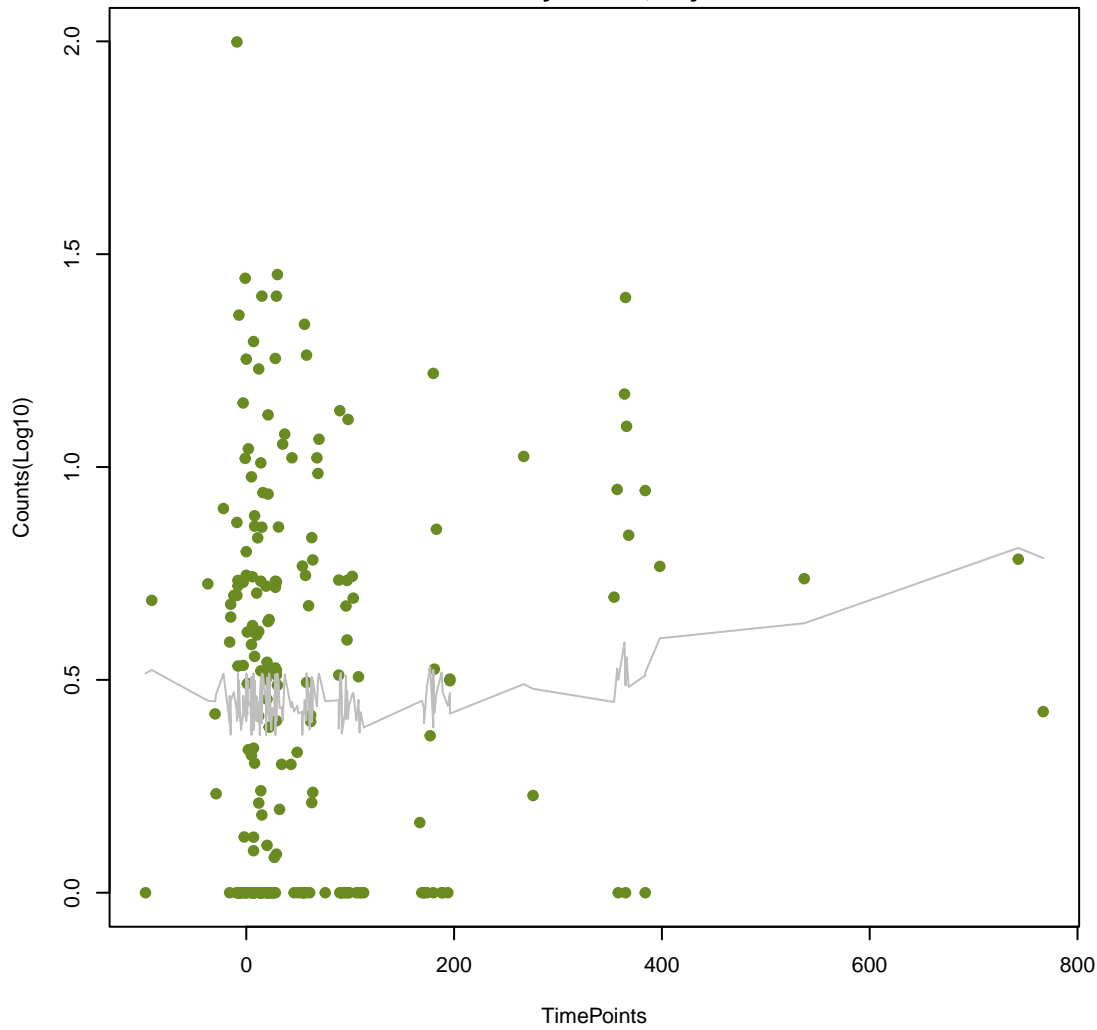


**ERP beta-lactamase**  
ANOVA P=0.375, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.135, adj. F-P=0.98

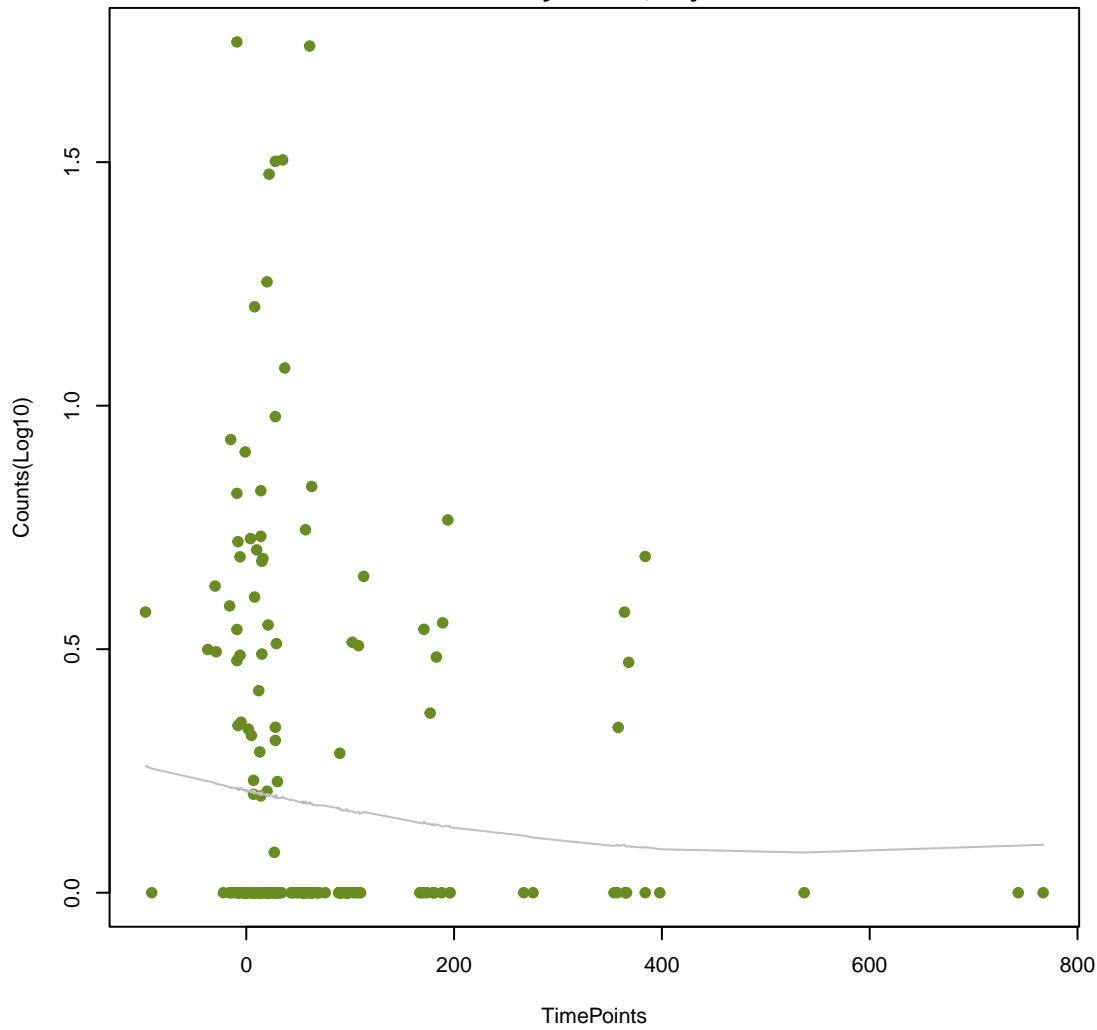




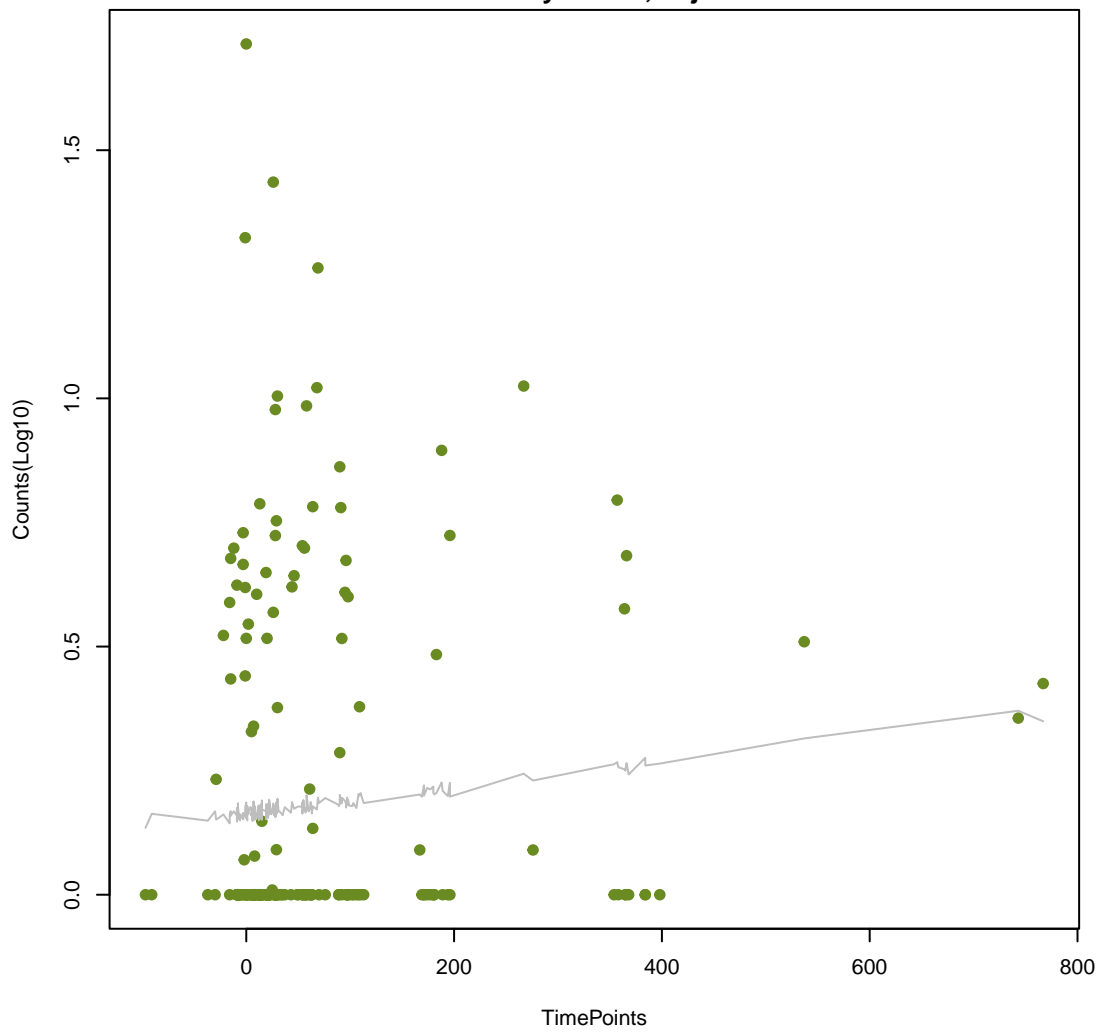
**IND beta-lactamase**  
ANOVA P=0.385, adj. ANOVA-P=0.844  
Line vs. Poly F-P=1, adj. F-P=1



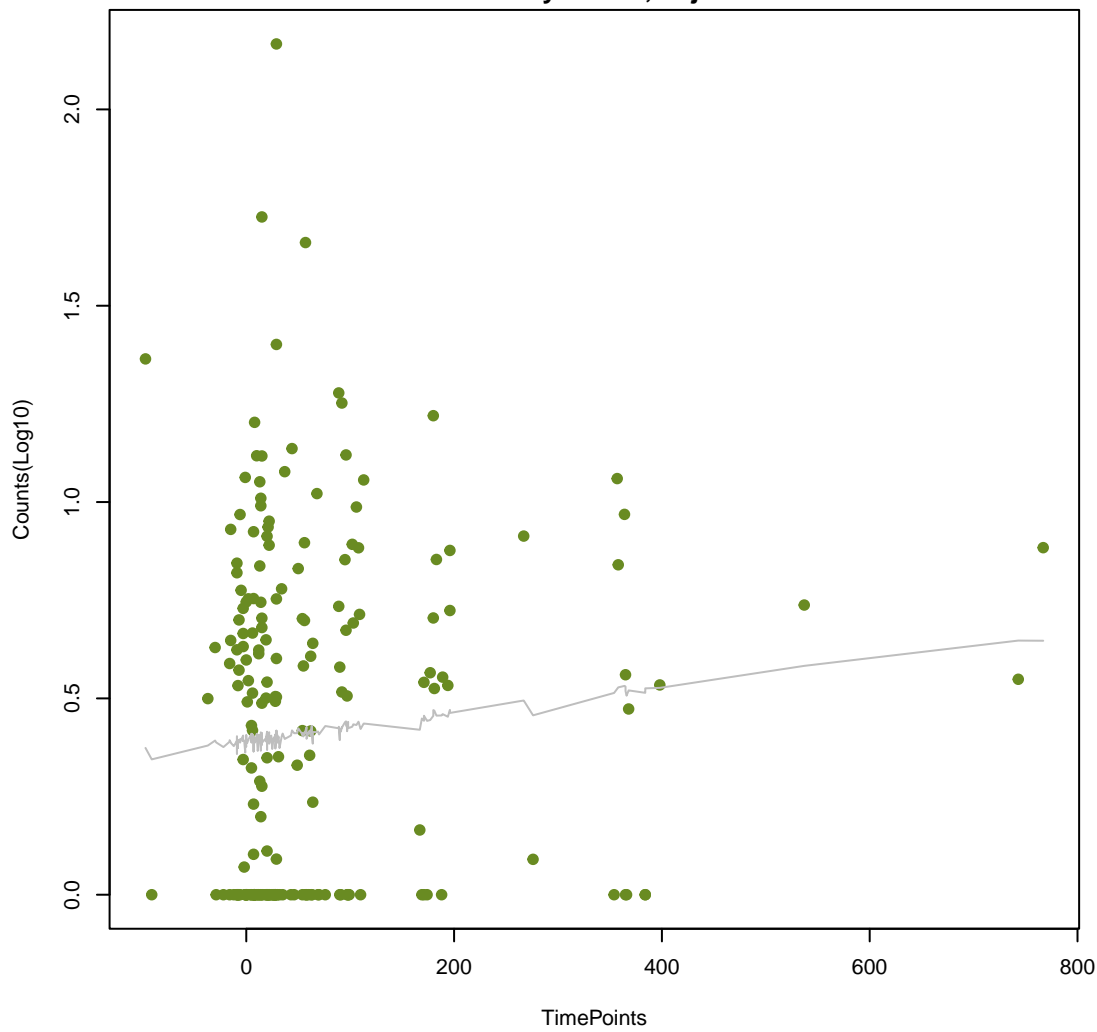
**CMH beta-lactamase**  
ANOVA P=0.403, adj. ANOVA-P=0.844  
Line vs. Poly F-P=1, adj. F-P=1



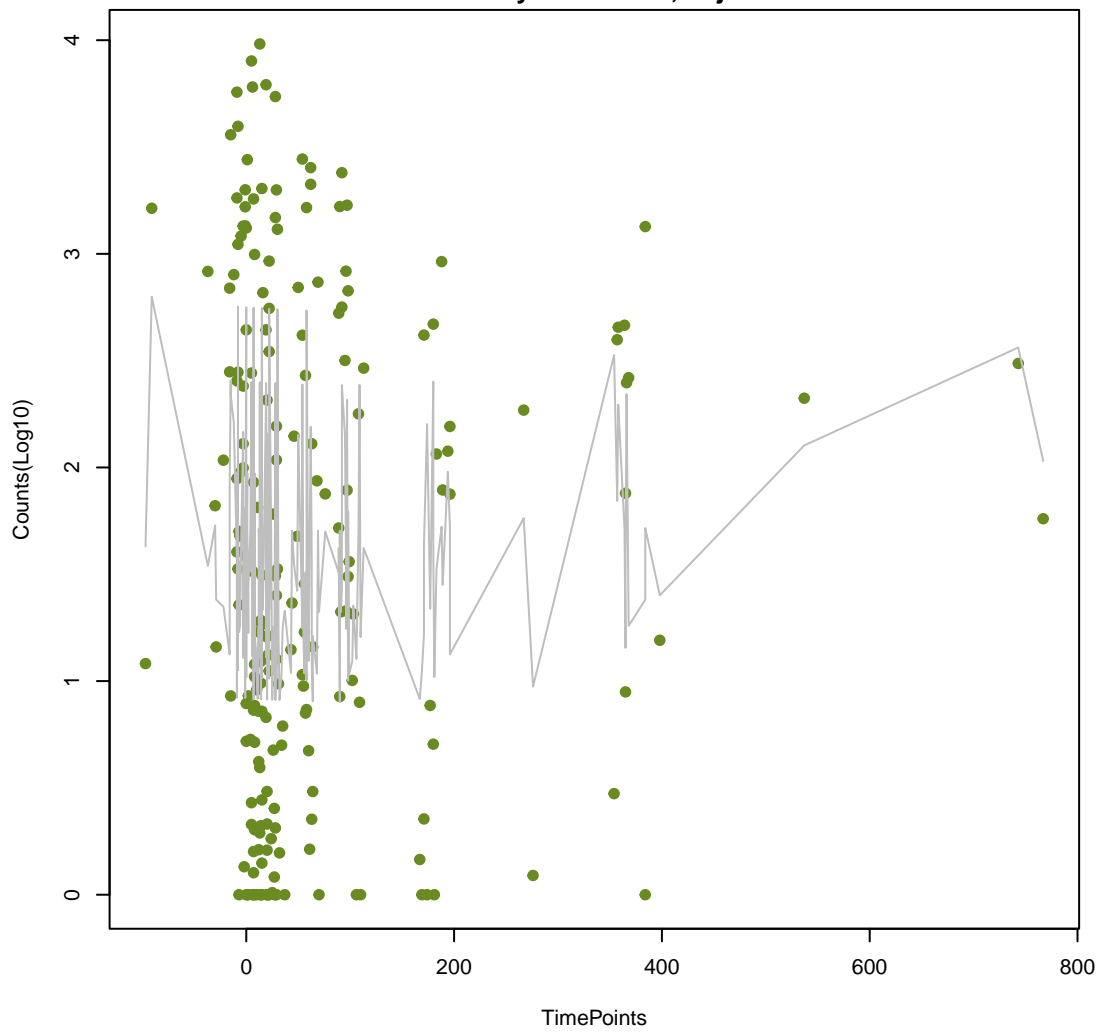
**RSA beta-lactamase**  
ANOVA P=0.408, adj. ANOVA-P=0.844  
Line vs. Poly F-P=1, adj. F-P=1



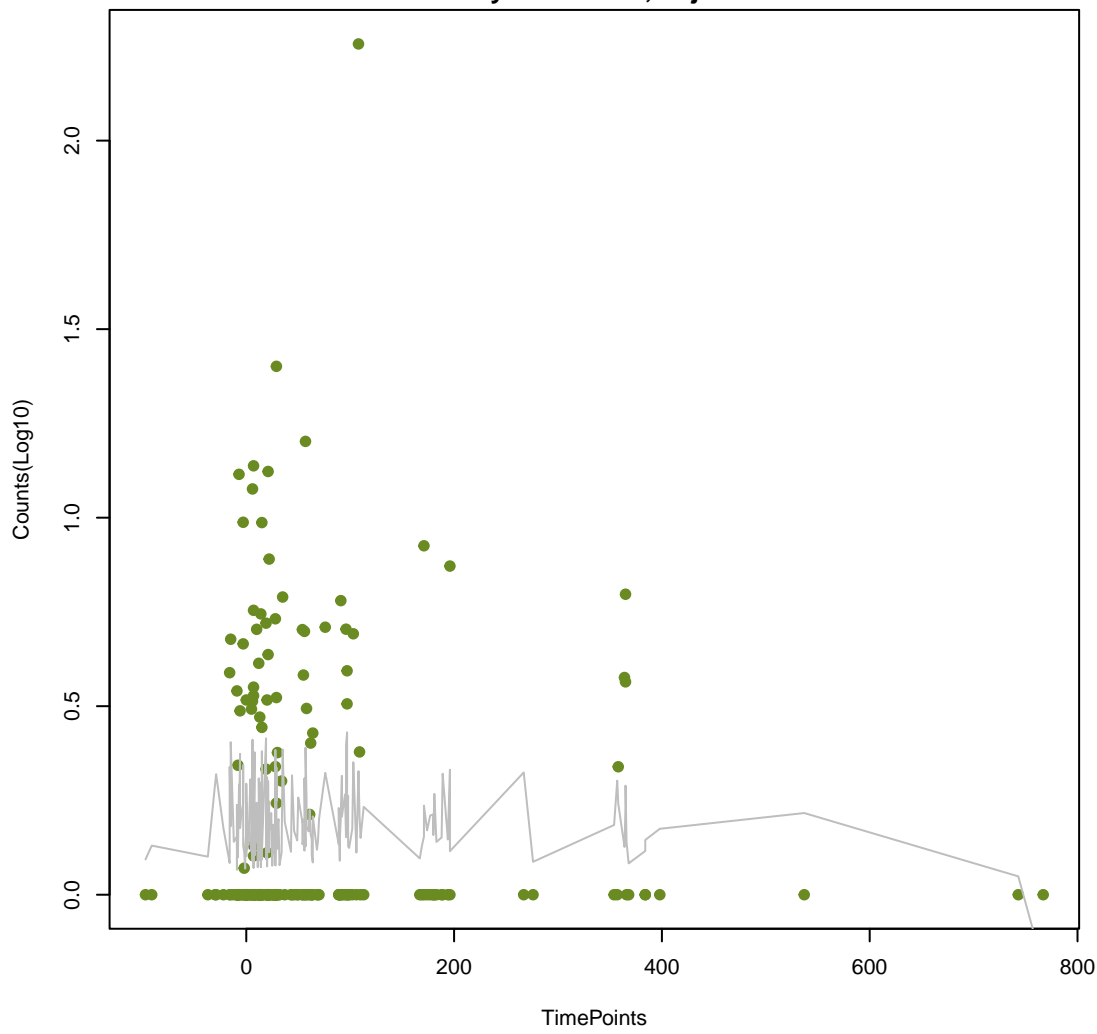
**SGM beta-lactamase**  
ANOVA P=0.415, adj. ANOVA-P=0.844  
Line vs. Poly F-P=1, adj. F-P=1



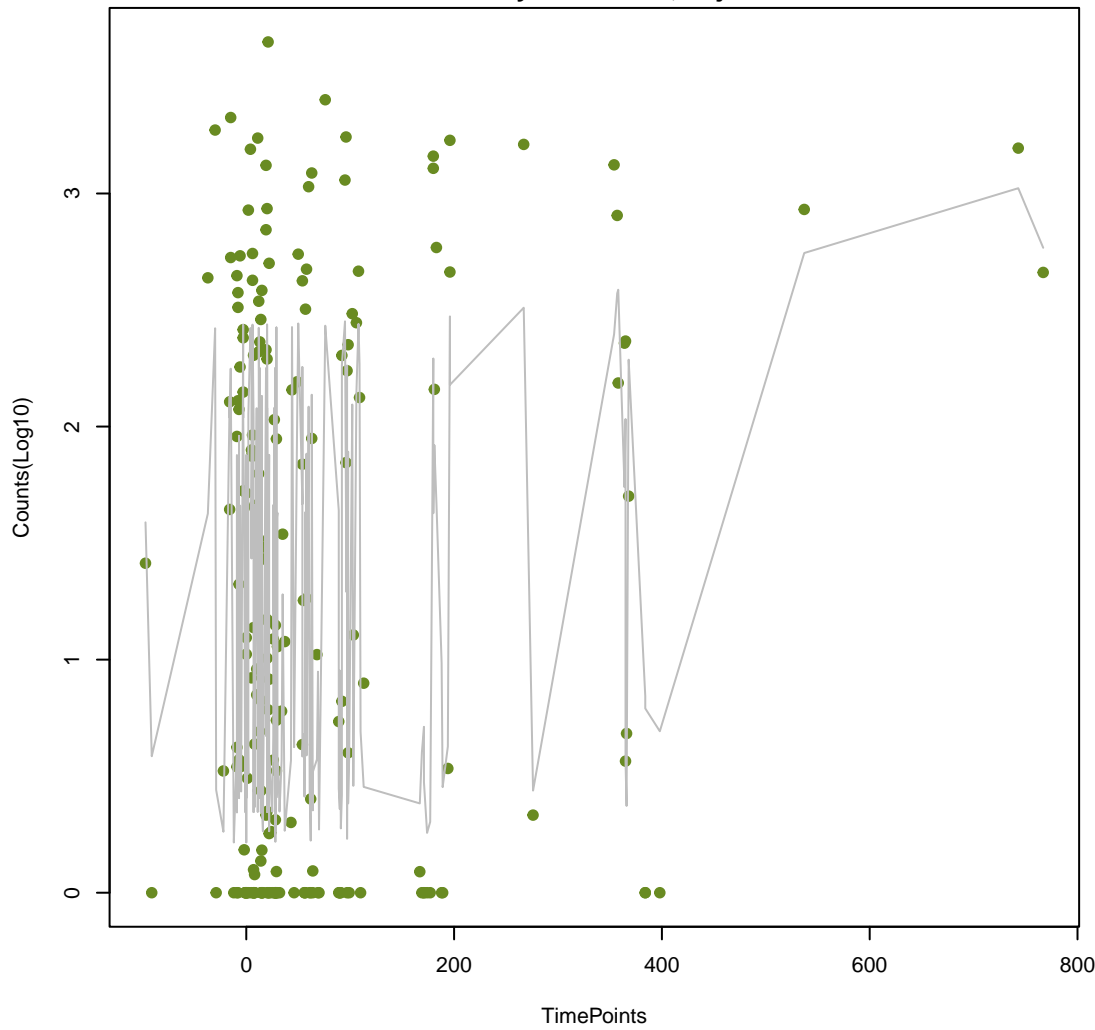
**lincosamide nucleotidyltransferase (LNU)**  
ANOVA P=0.428, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.434, adj. F-P=1



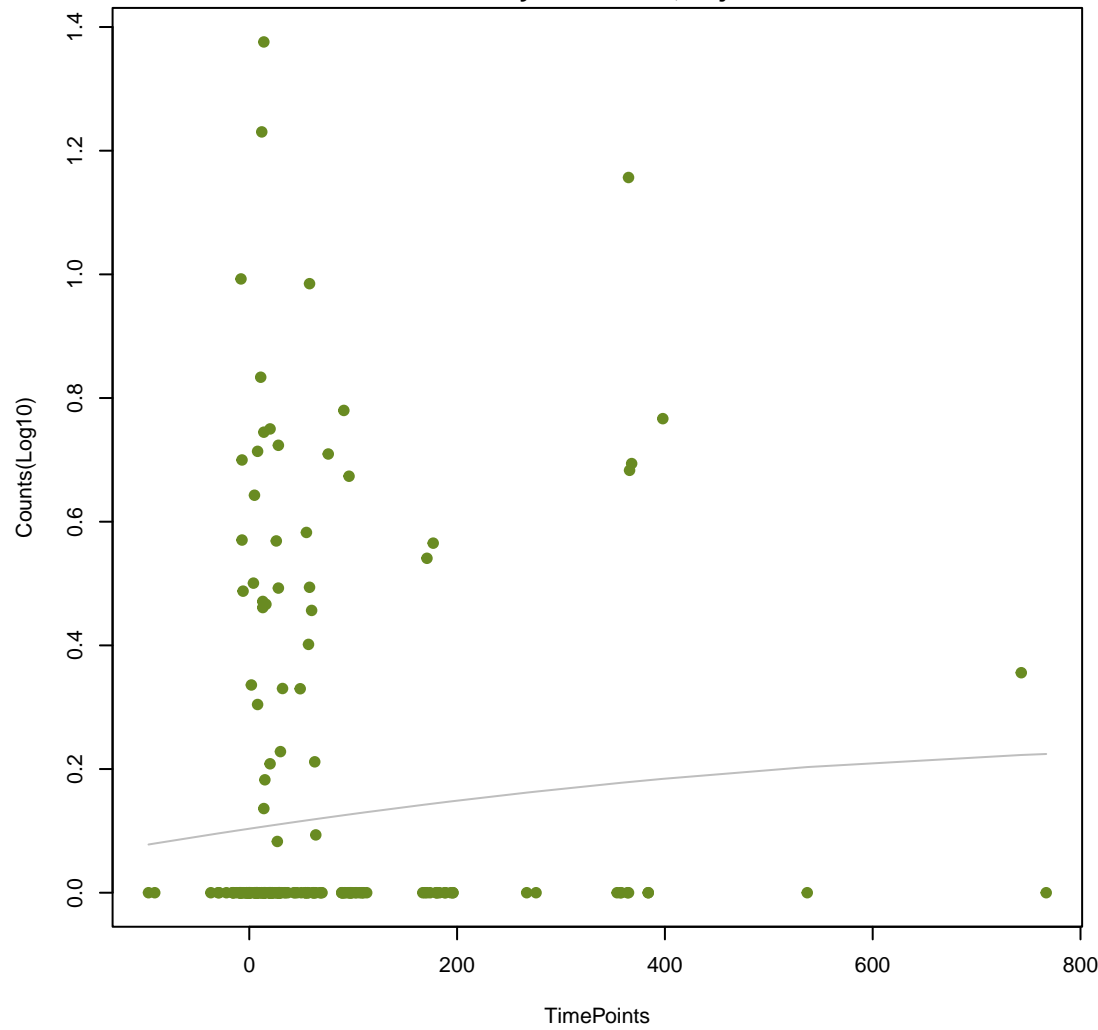
**AAC(2')**  
ANOVA P=0.446, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.184, adj. F-P=0.988



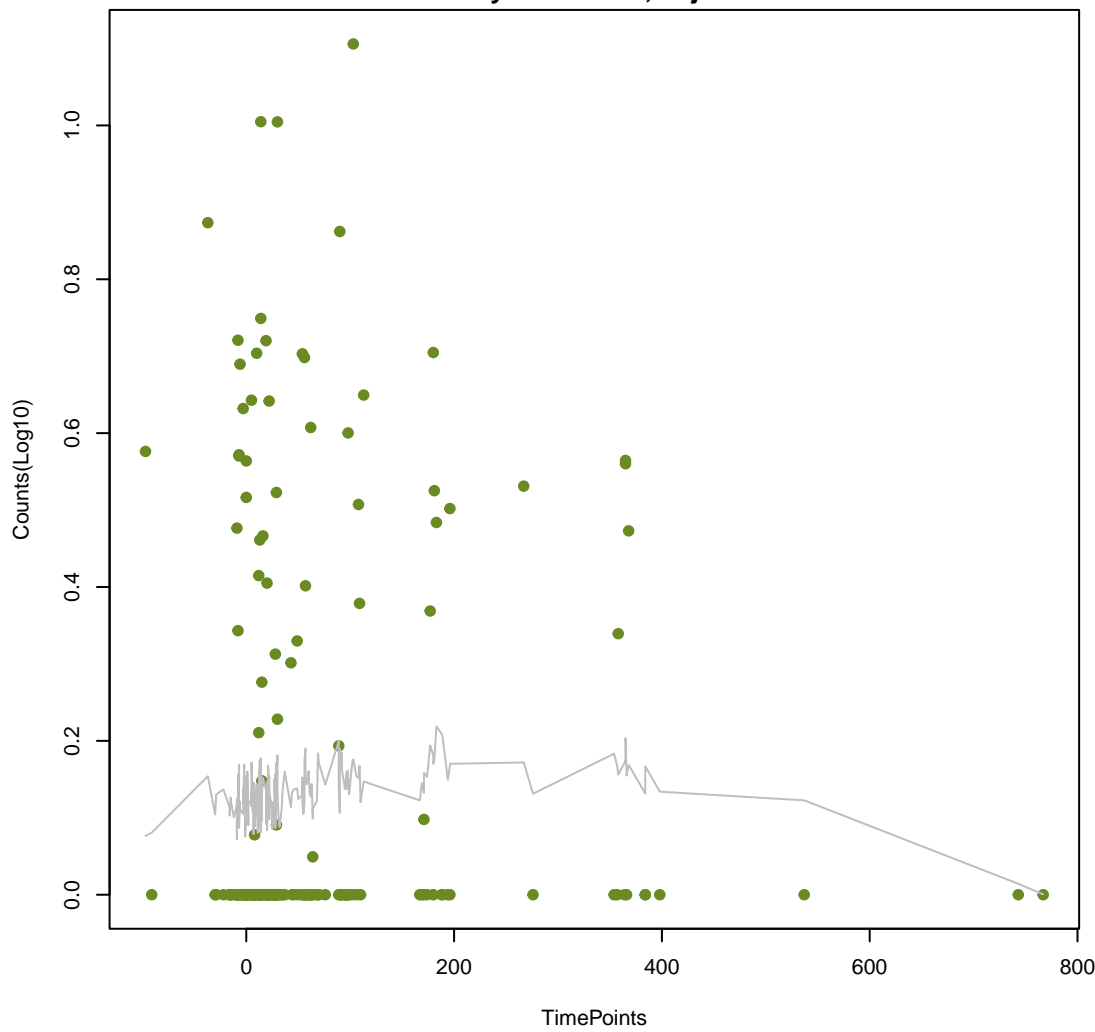
**CbIA beta-lactamase**  
ANOVA P=0.45, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.806, adj. F-P=1



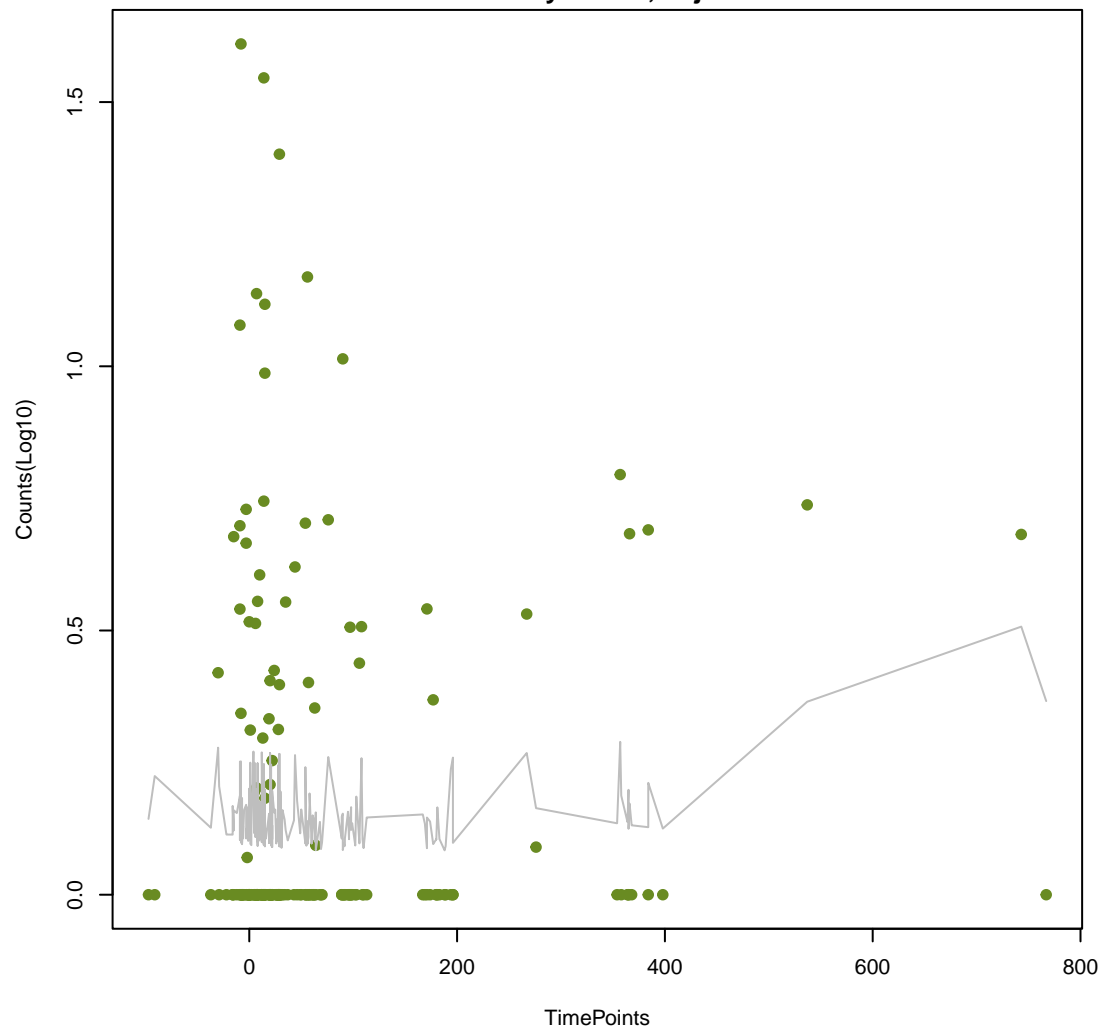
**EBR beta-lactamase**  
ANOVA P=0.455, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.846, adj. F-P=1



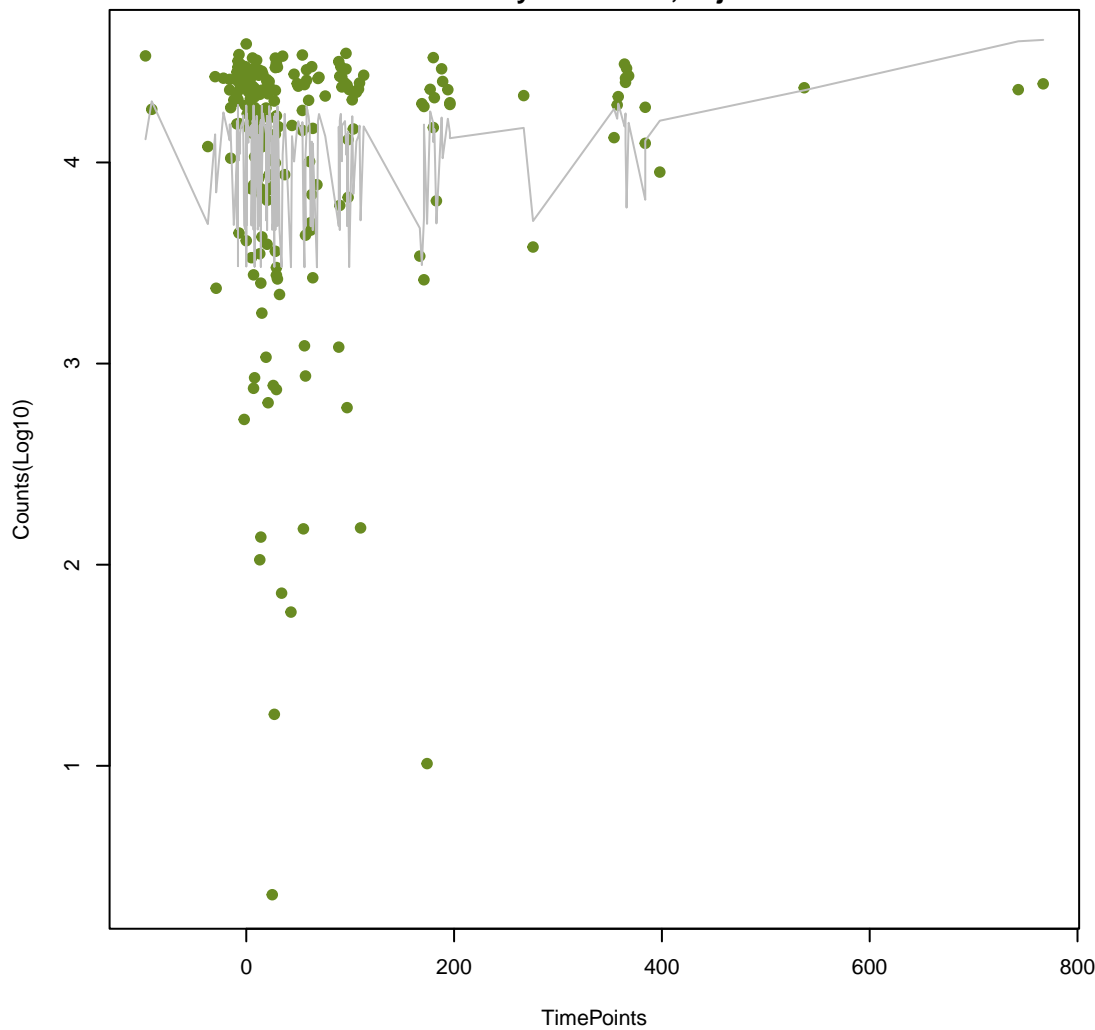
**TLA beta-lactamase**  
ANOVA P=0.457, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.191, adj. F-P=0.988



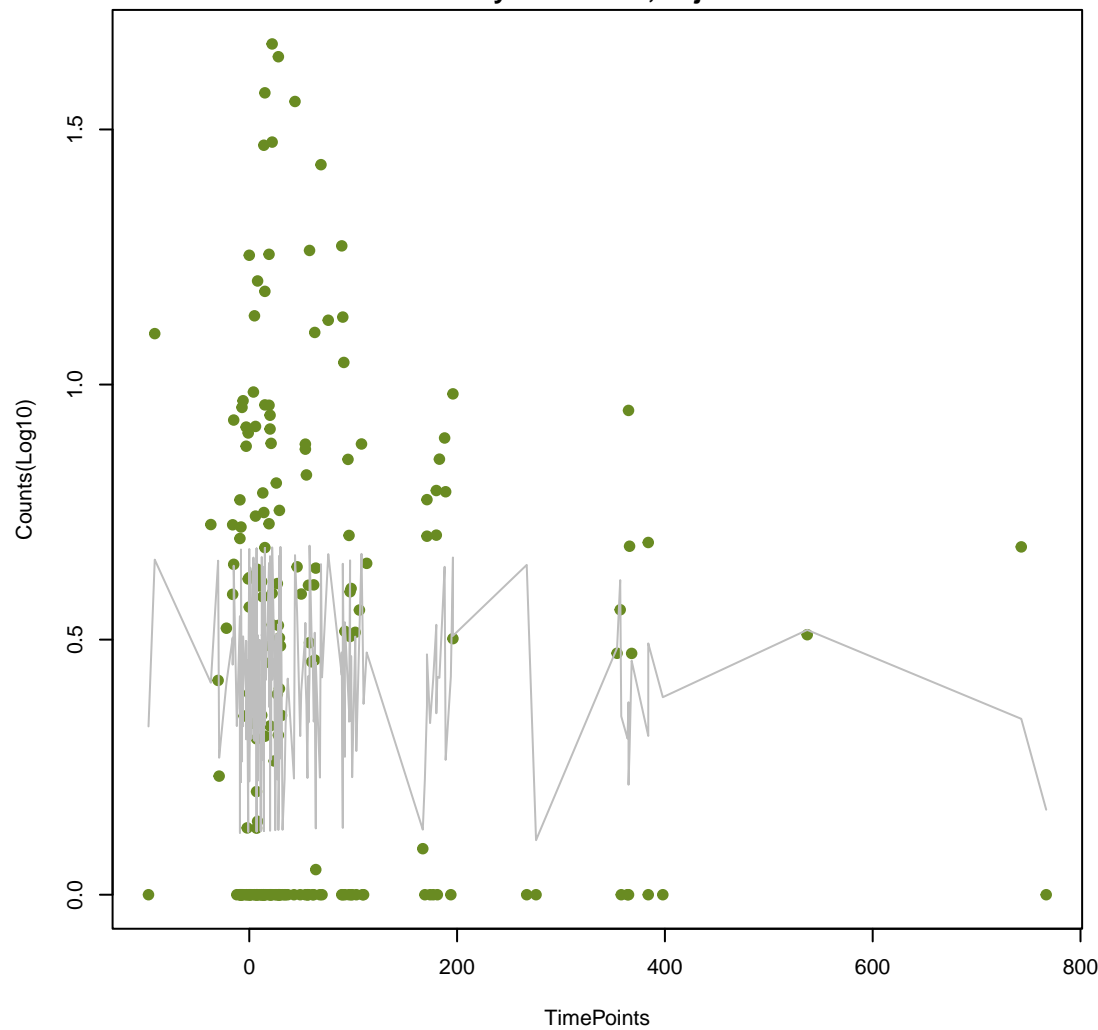
**rifampin ADP-ribosyltransferase (Arr)**  
ANOVA P=0.468, adj. ANOVA-P=0.844  
Line vs. Poly F-P=1, adj. F-P=1



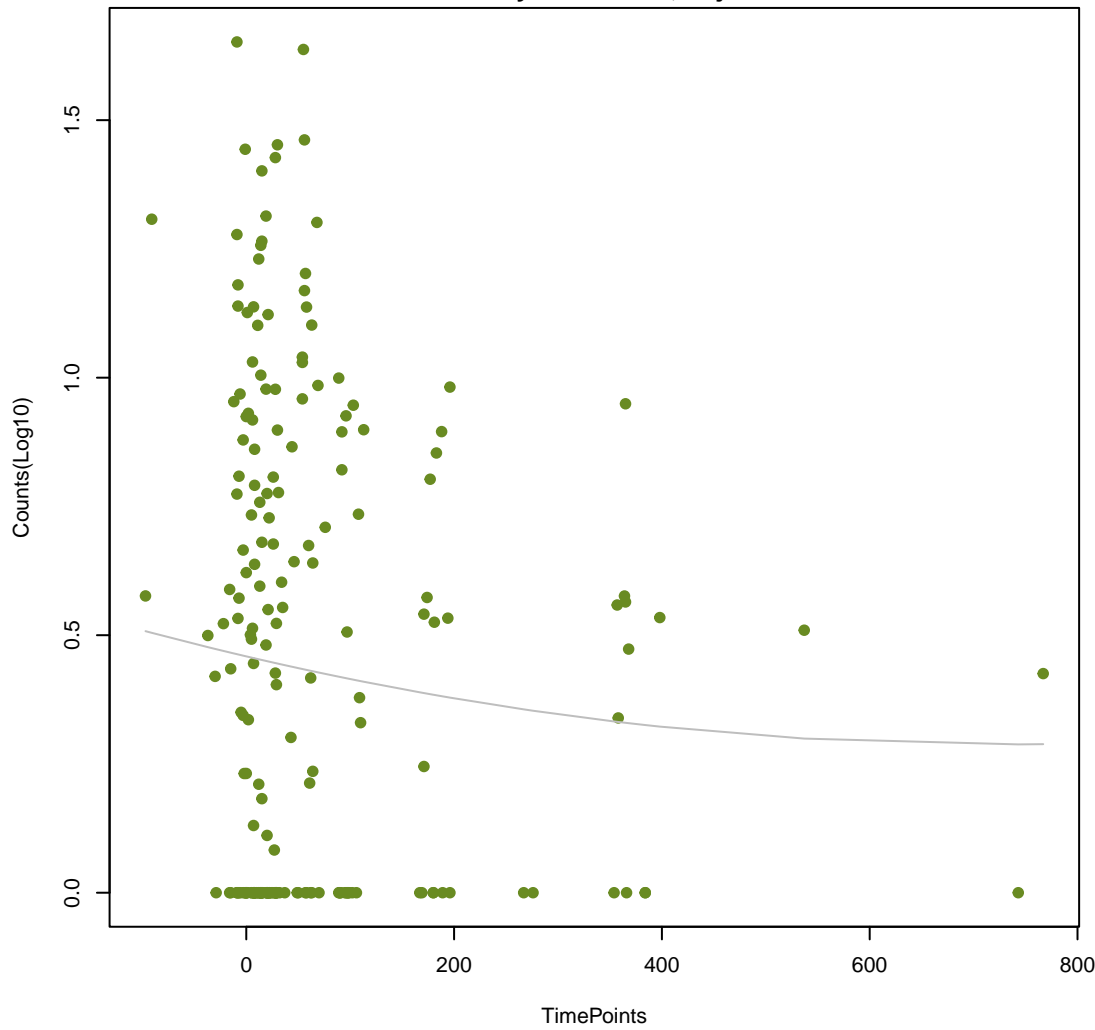
**tetracycline-resistant ribosomal protection protein**  
ANOVA P=0.469, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.935, adj. F-P=1



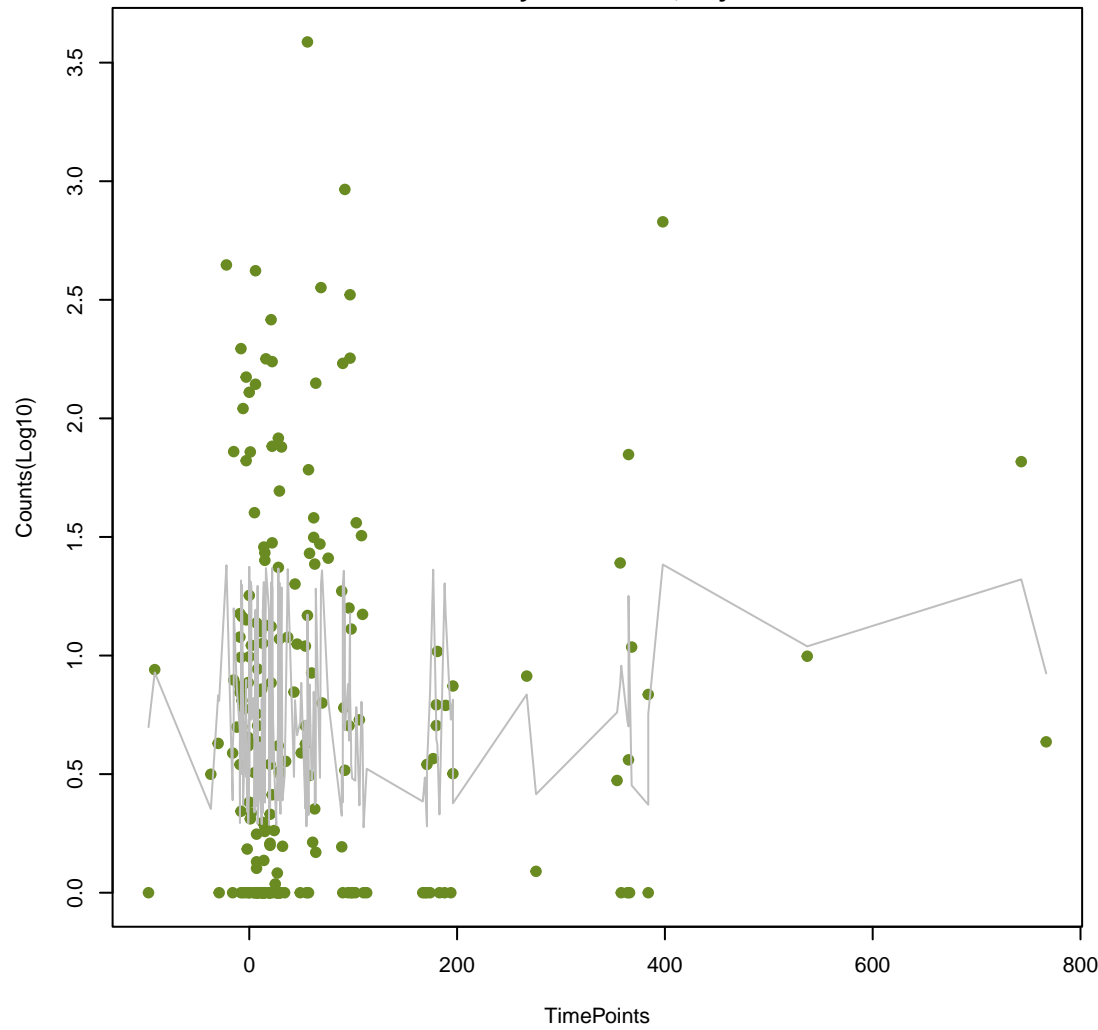
**HERA beta-lactamase**  
ANOVA P=0.471, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.233, adj. F-P=0.988



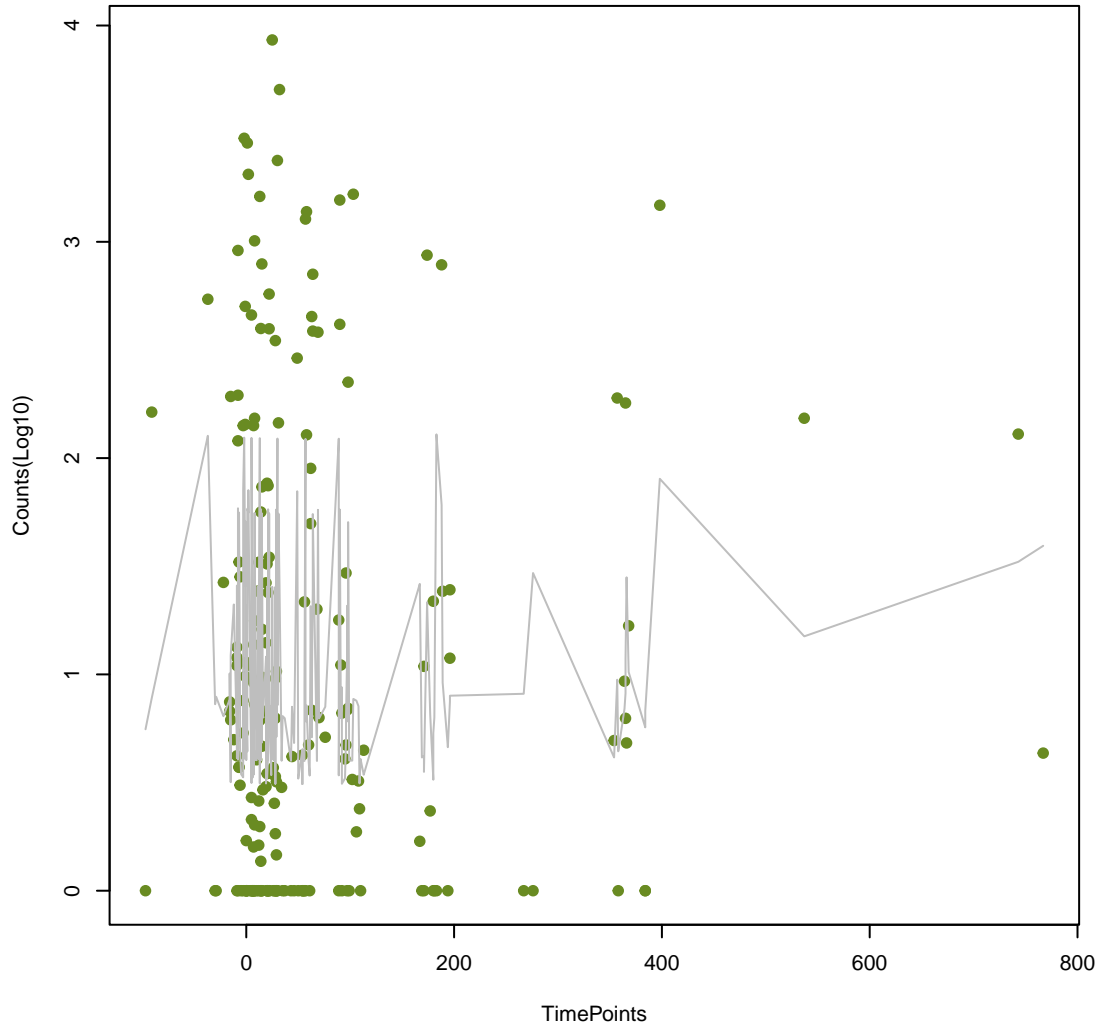
**CphA beta-lactamase**  
ANOVA P=0.483, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.765, adj. F-P=1



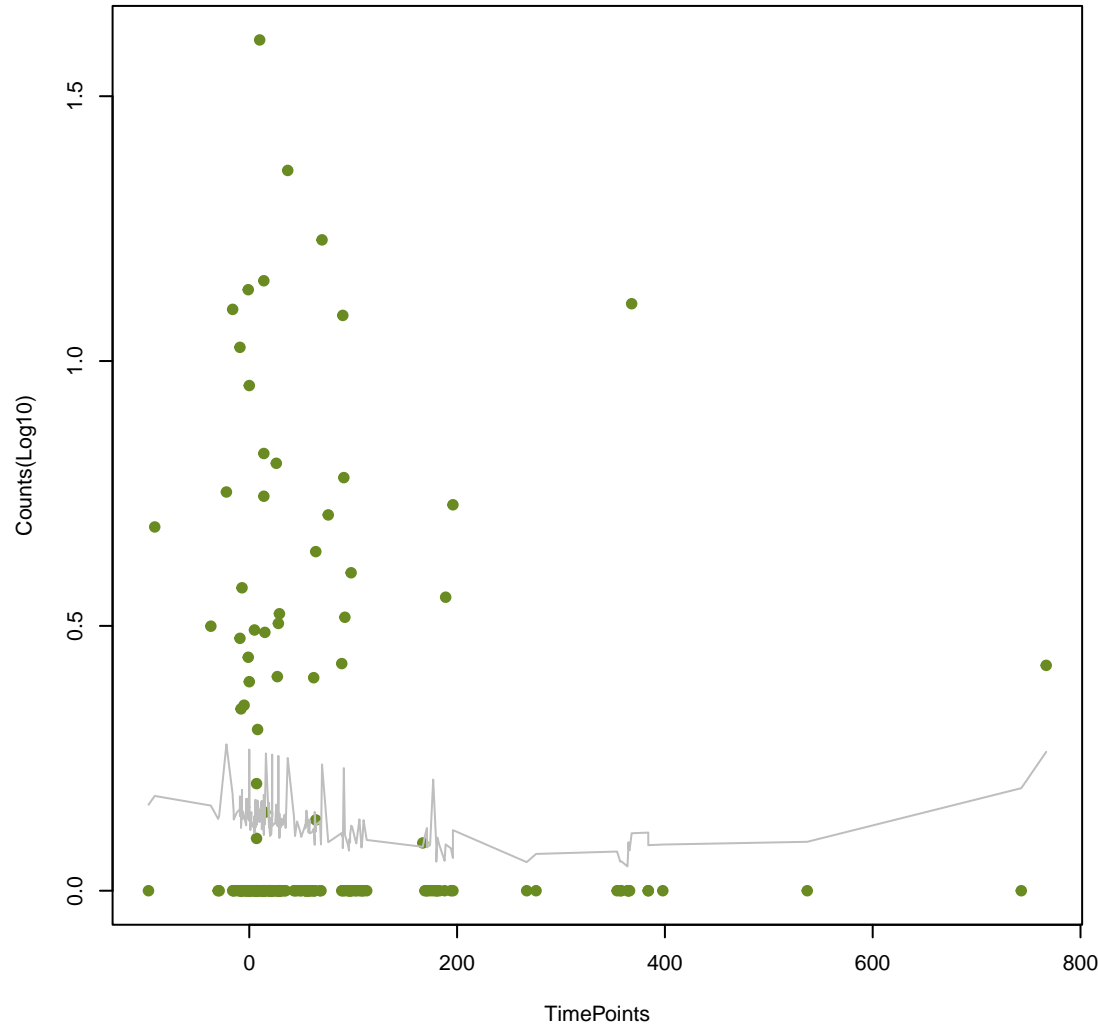
**chloramphenicol acetyltransferase (CAT)**  
ANOVA P=0.514, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.351, adj. F-P=1



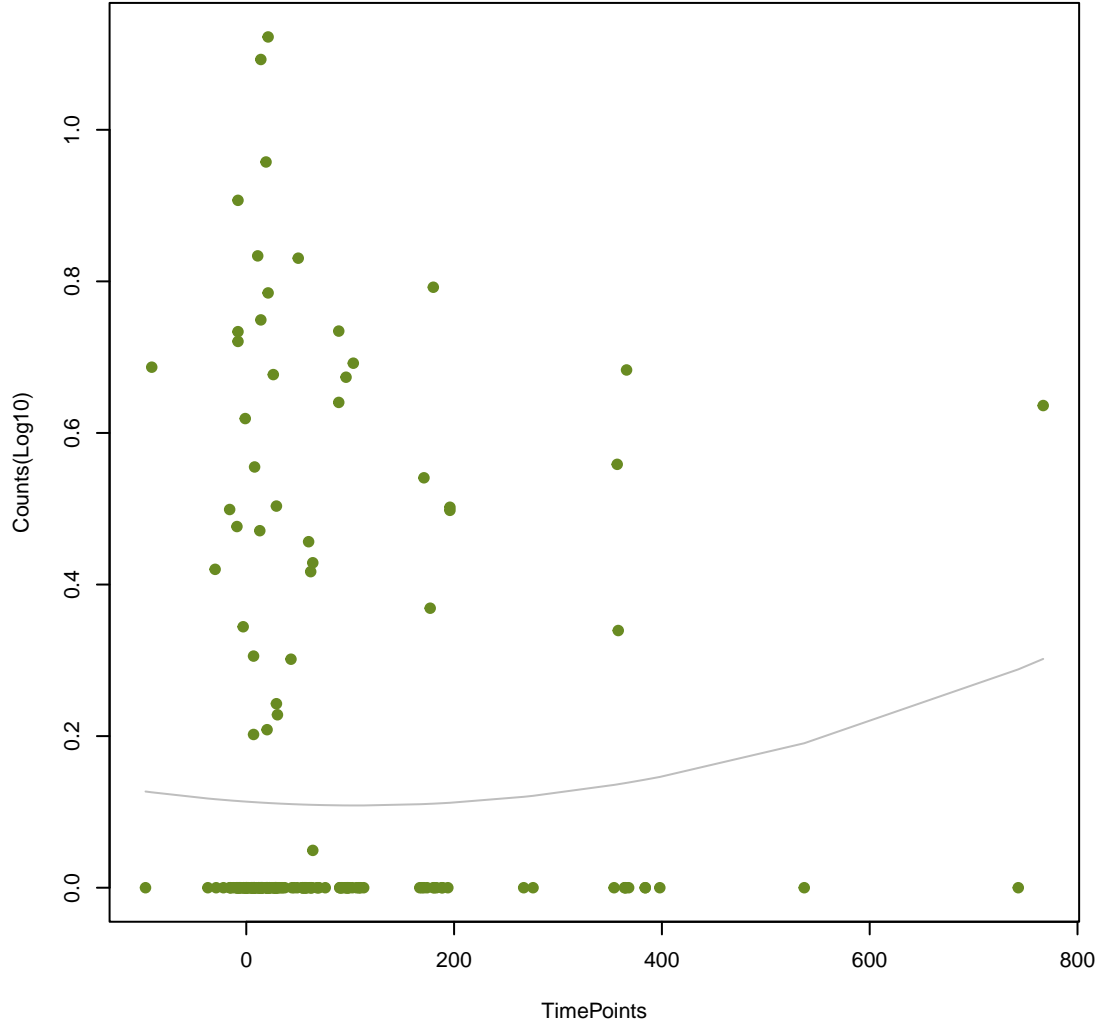
**sulfonamide resistant sul**  
ANOVA P=0.519, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.626, adj. F-P=1



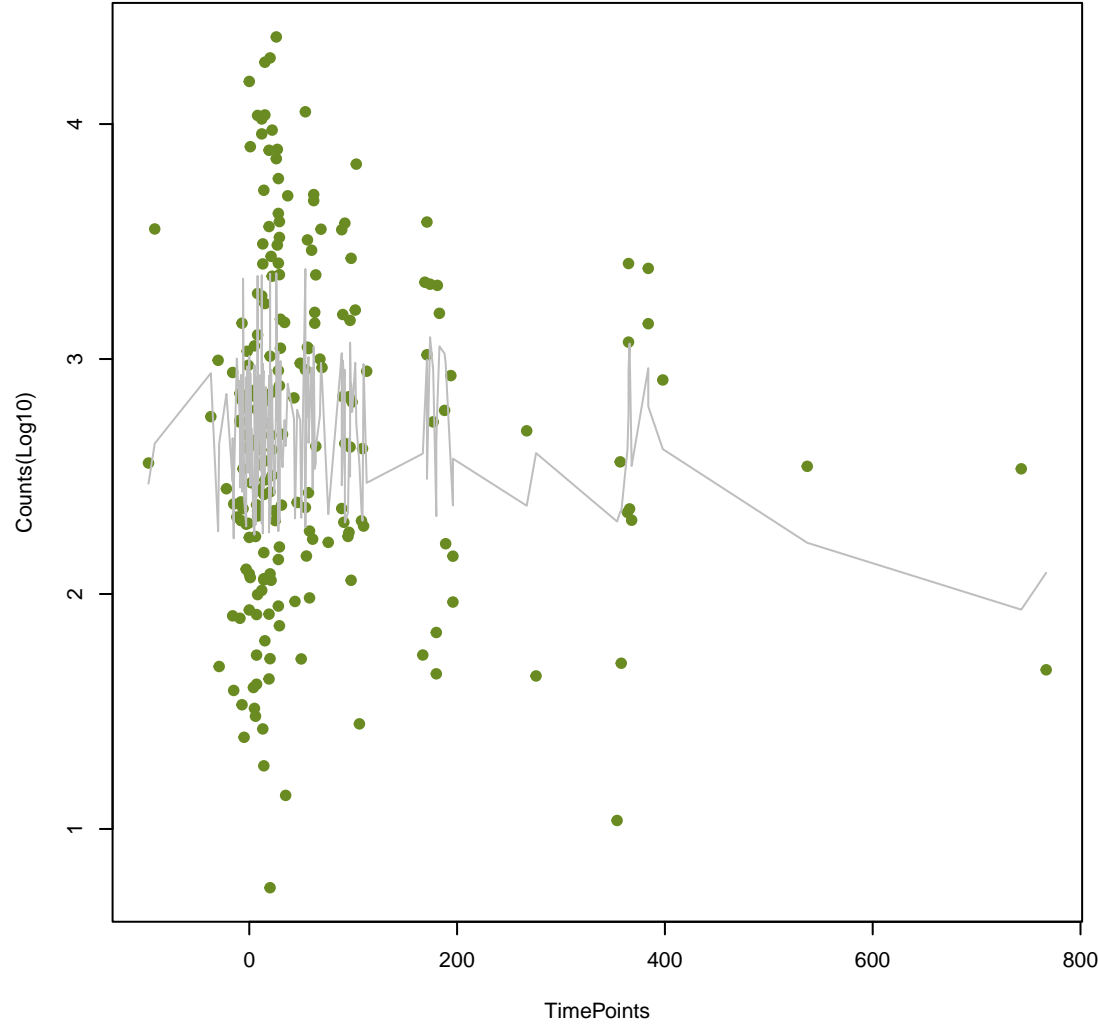
**AAC(6')-Ib-cr**  
ANOVA P=0.519, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.306, adj. F-P=1



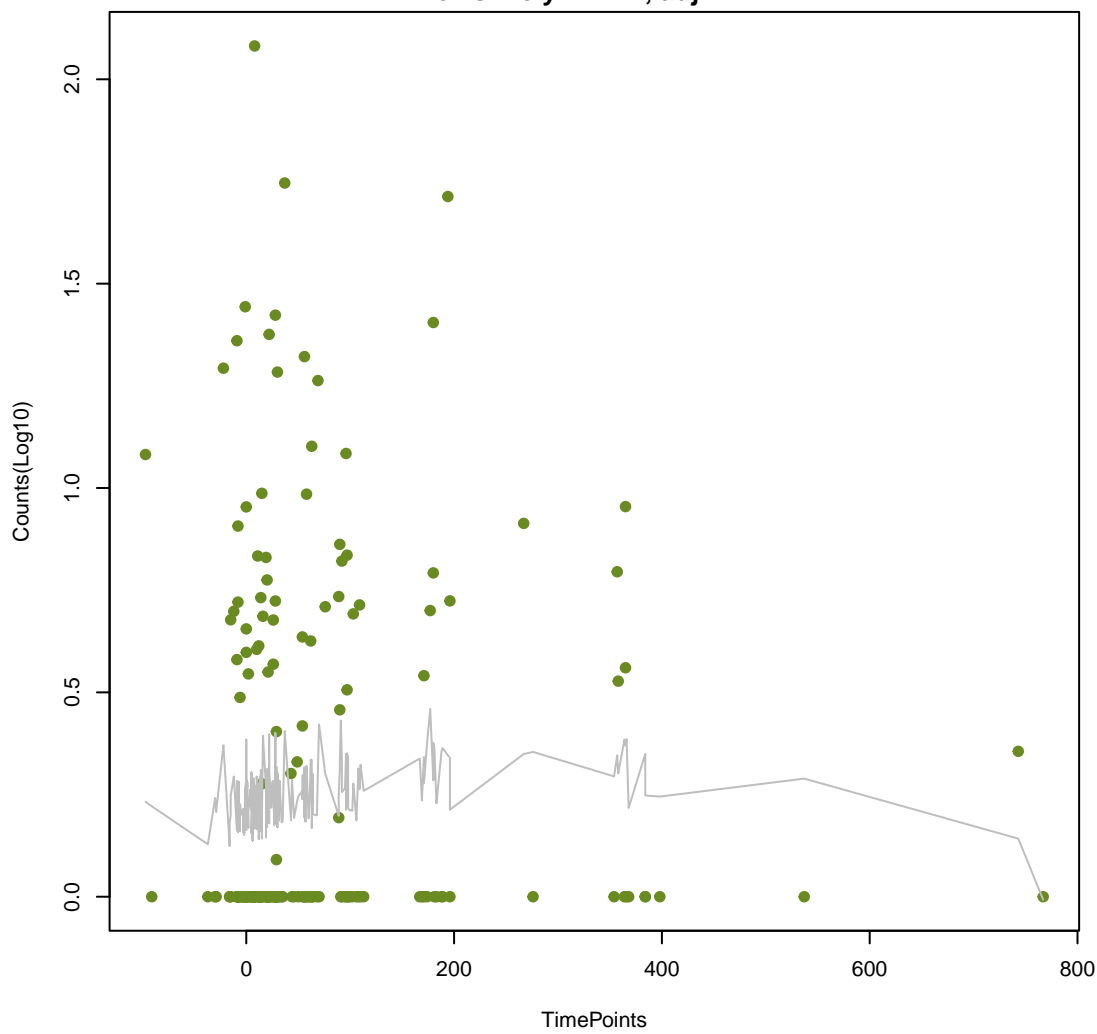
**SPN79 beta-lactamase**  
ANOVA P=0.538, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.46, adj. F-P=1



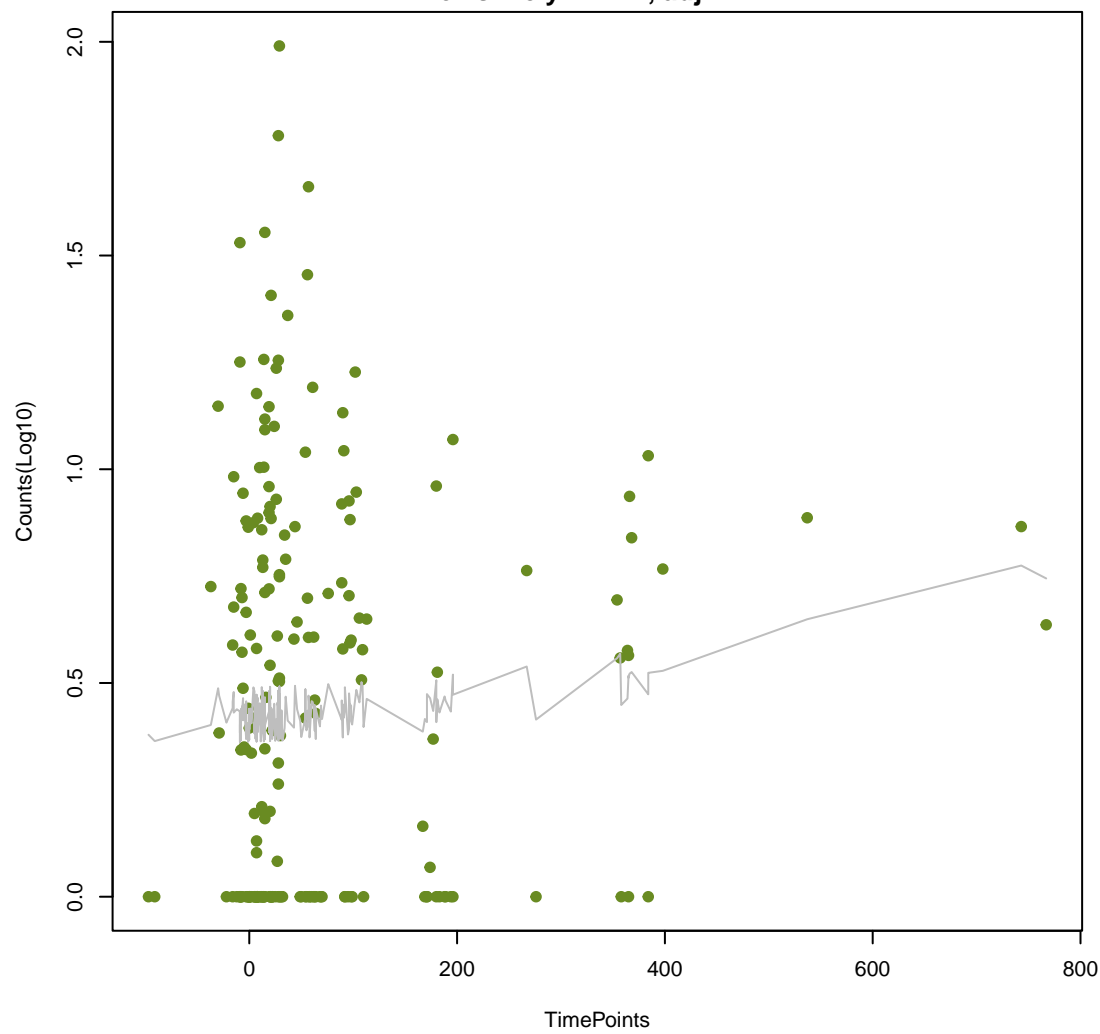
**ATP-binding cassette (ABC) antibiotic efflux pump**  
ANOVA P=0.544, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.309, adj. F-P=1



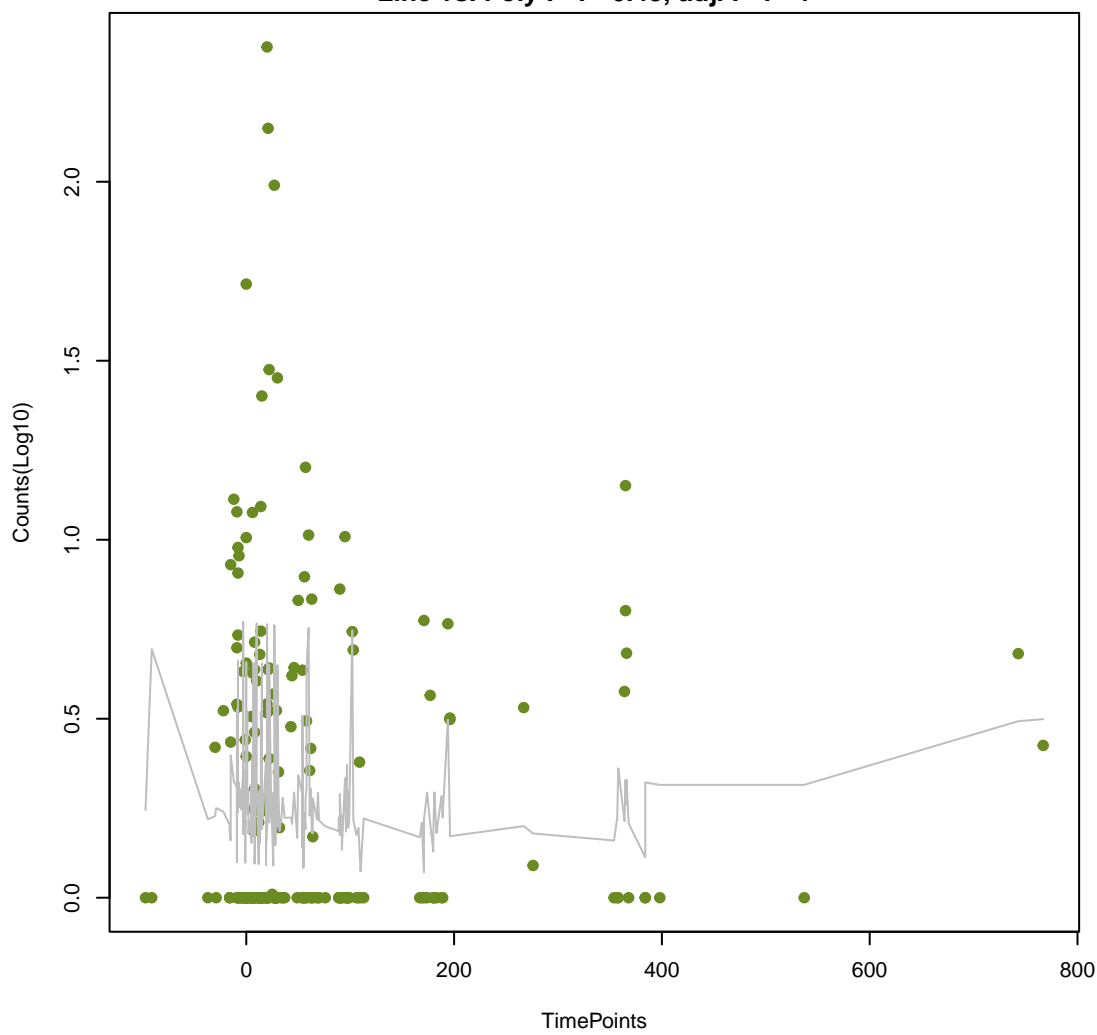
**MIR beta-lactamase**  
ANOVA P=0.546, adj. ANOVA-P=0.844  
Line vs. Poly F-P=1, adj. F-P=1



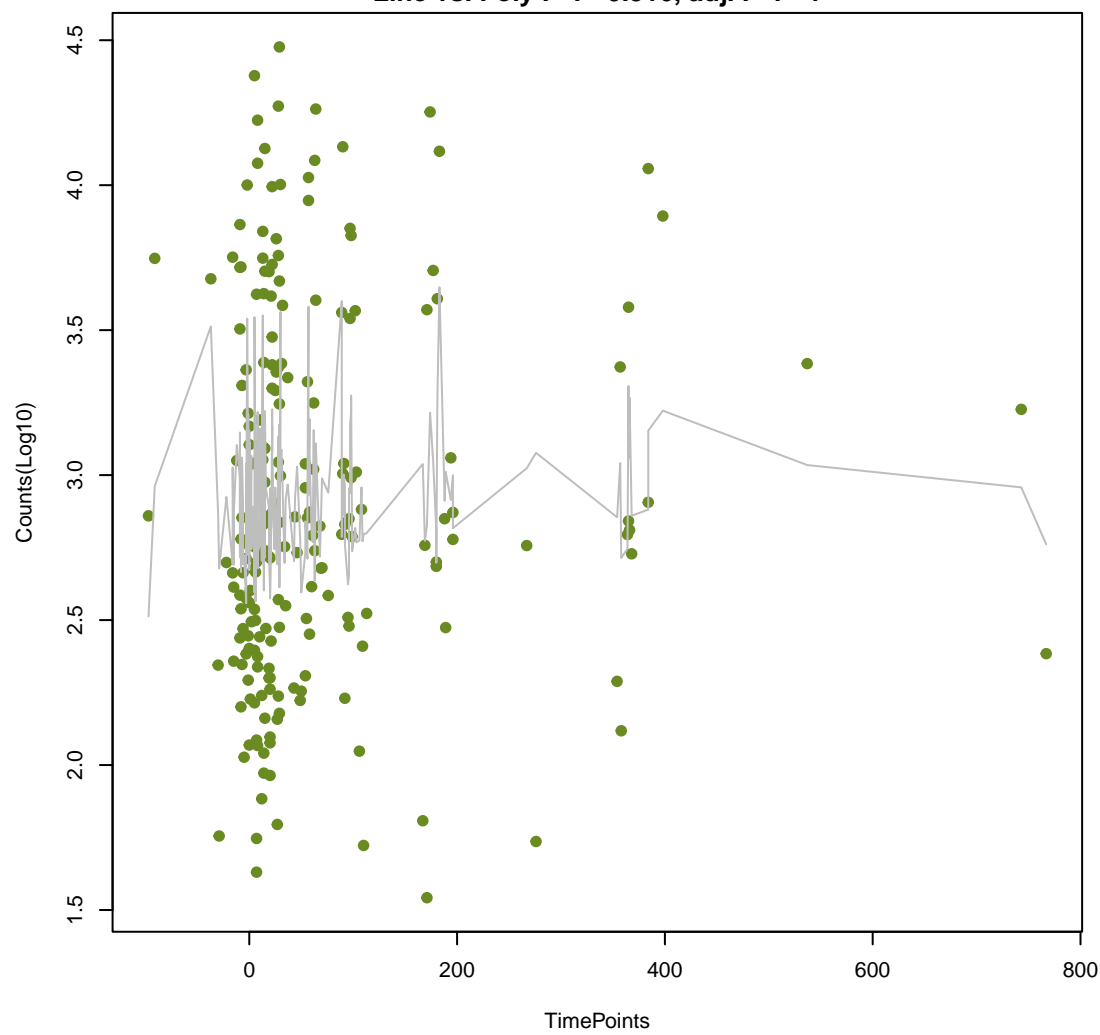
**OKP beta-lactamase**  
ANOVA P=0.547, adj. ANOVA-P=0.844  
Line vs. Poly F-P=1, adj. F-P=1



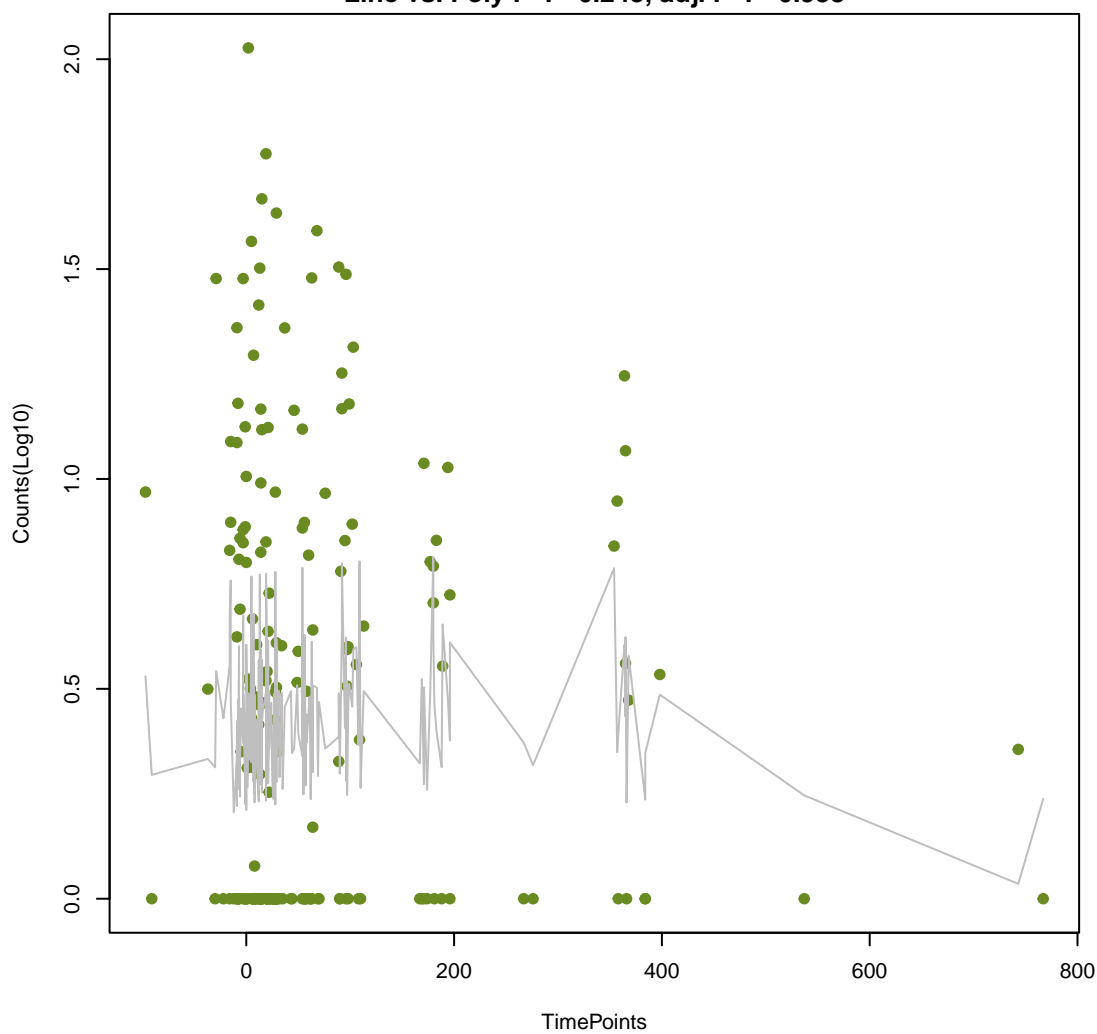
**CfiA beta-lactamase**  
ANOVA P=0.55, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.45, adj. F-P=1



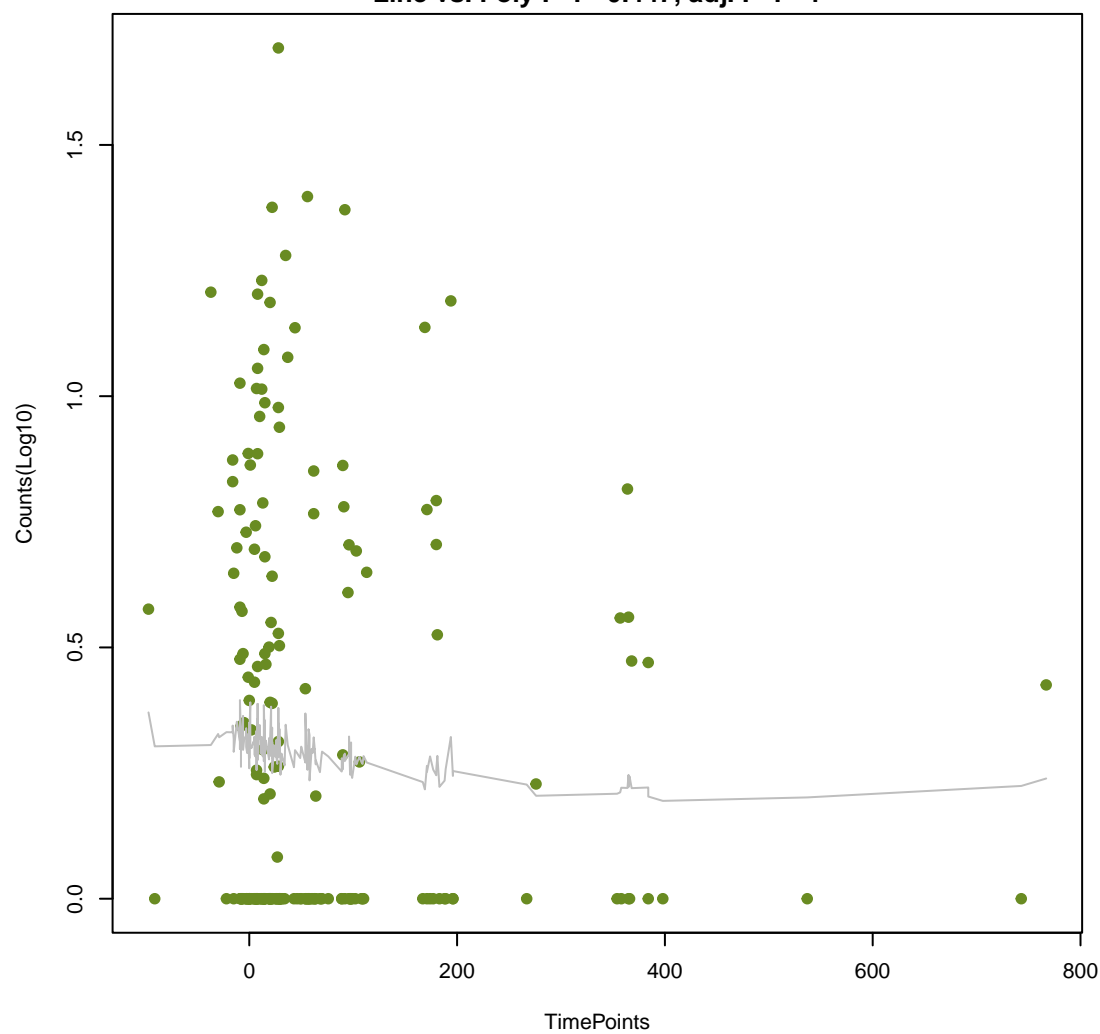
**resistance-nodulation-cell division (RND) antibiotic efflux pump**  
ANOVA P=0.551, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.516, adj. F-P=1



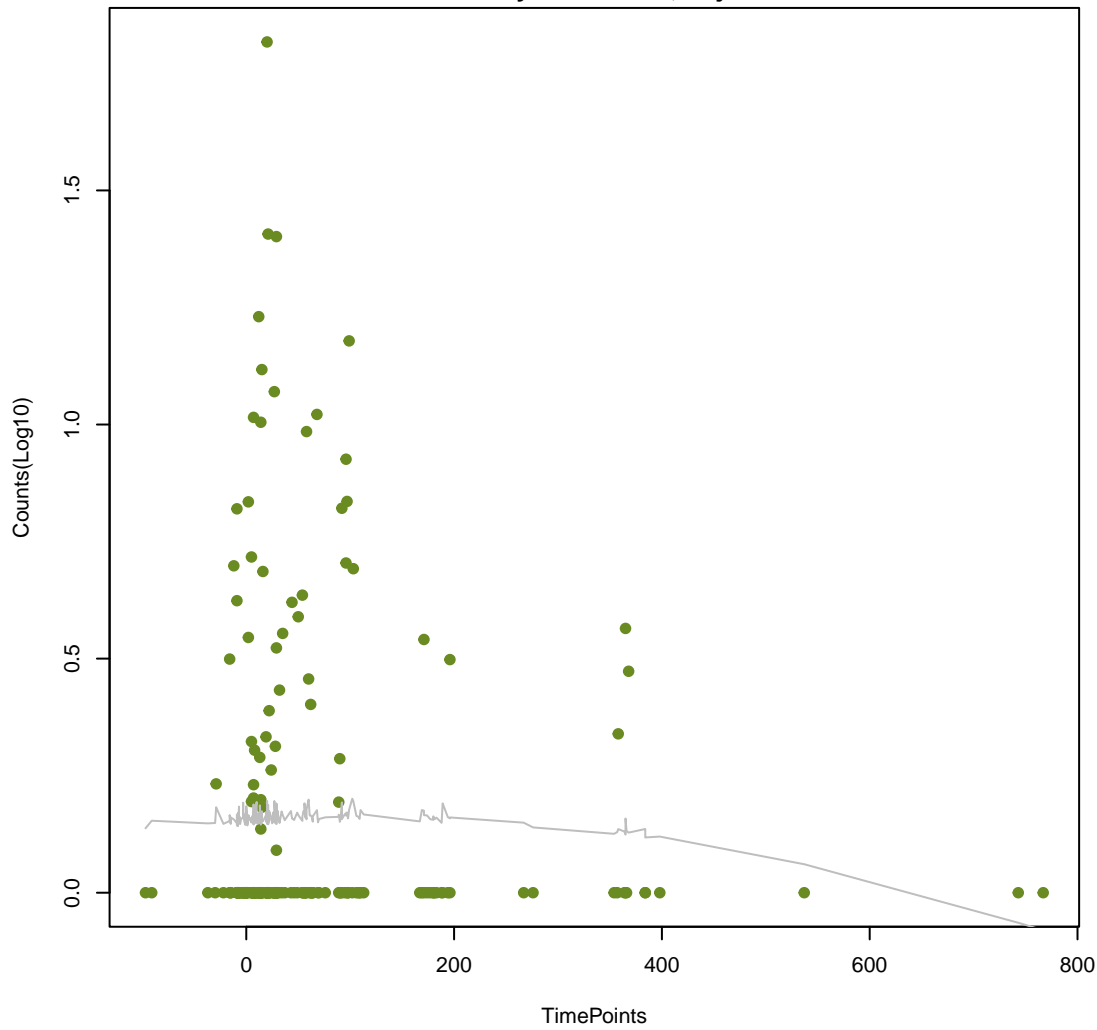
**CDD beta-lactamase**  
ANOVA P=0.561, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.243, adj. F-P=0.988



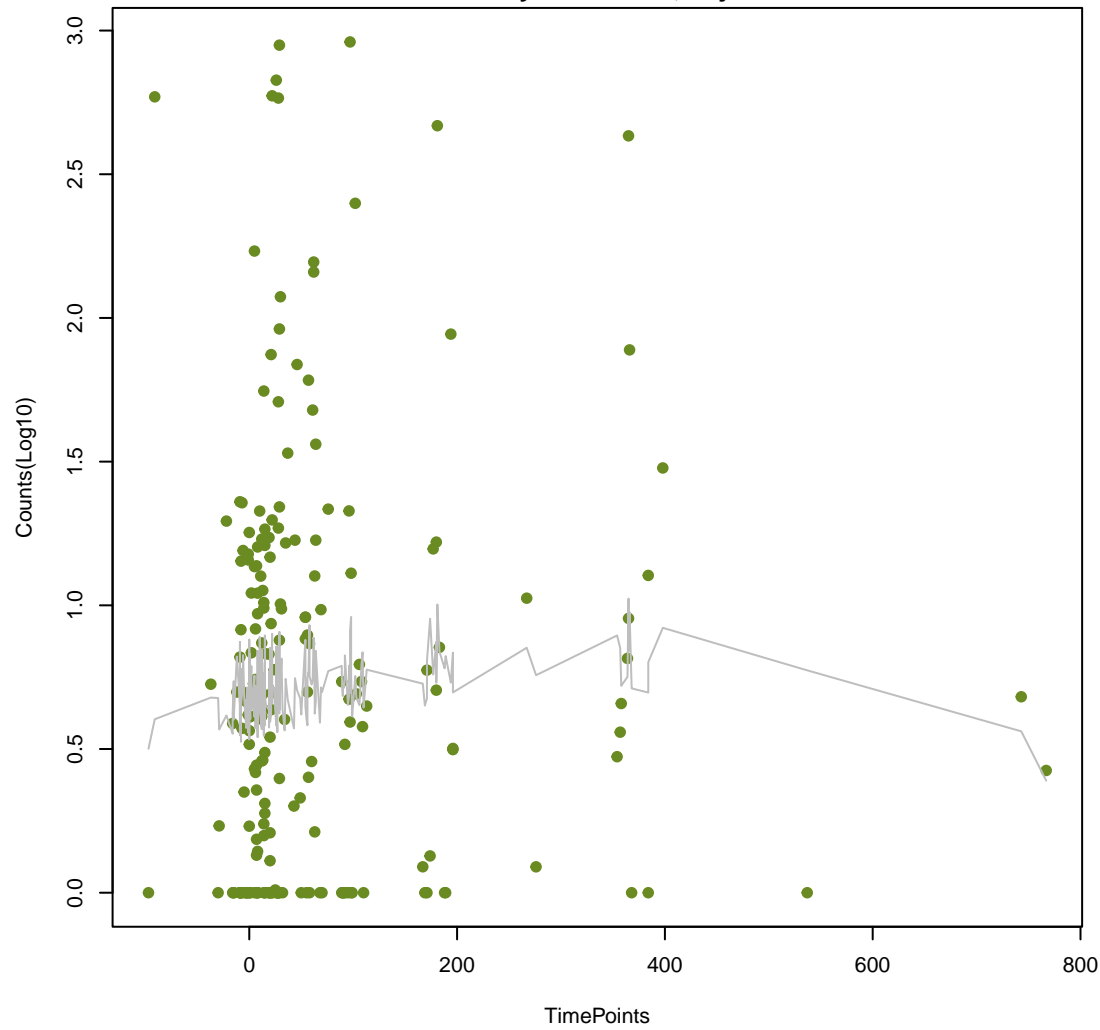
**subclass B3 LRA beta-lactamase**  
ANOVA P=0.561, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.447, adj. F-P=1



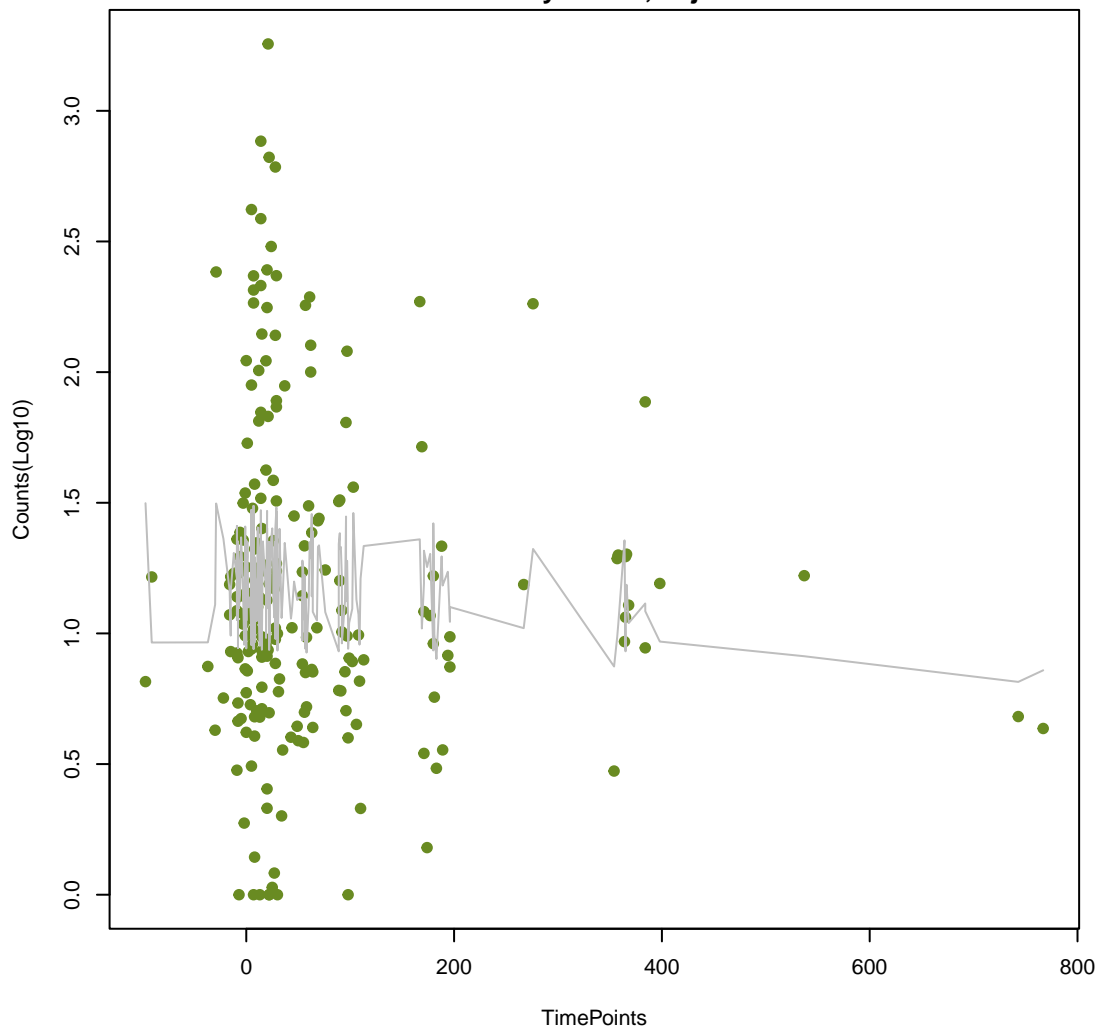
**CMA beta-lactamase**  
ANOVA P=0.567, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.354, adj. F-P=1



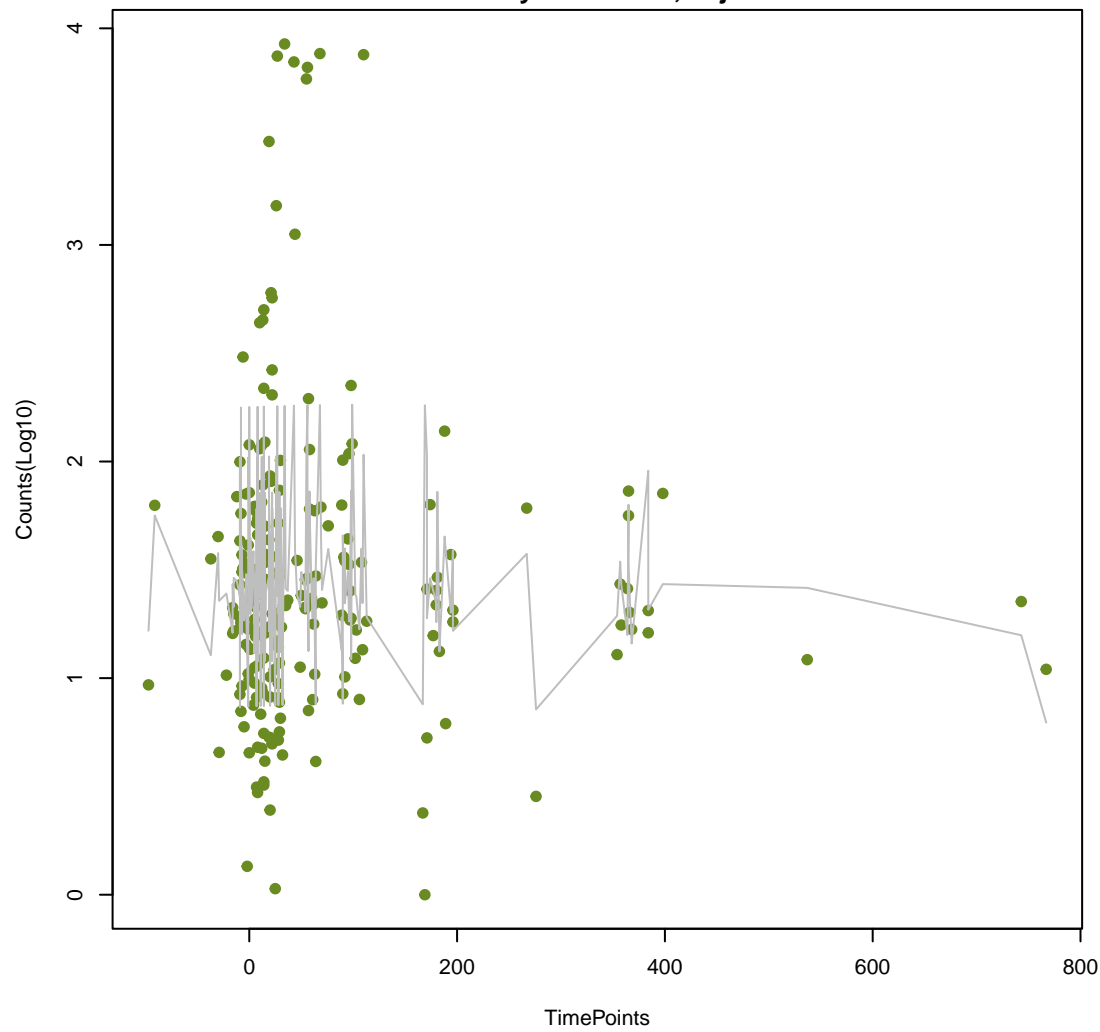
**fosfomycin thiol transferase**  
ANOVA P=0.573, adj. ANOVA-P=0.844  
Line vs. Poly F-P=0.548, adj. F-P=1



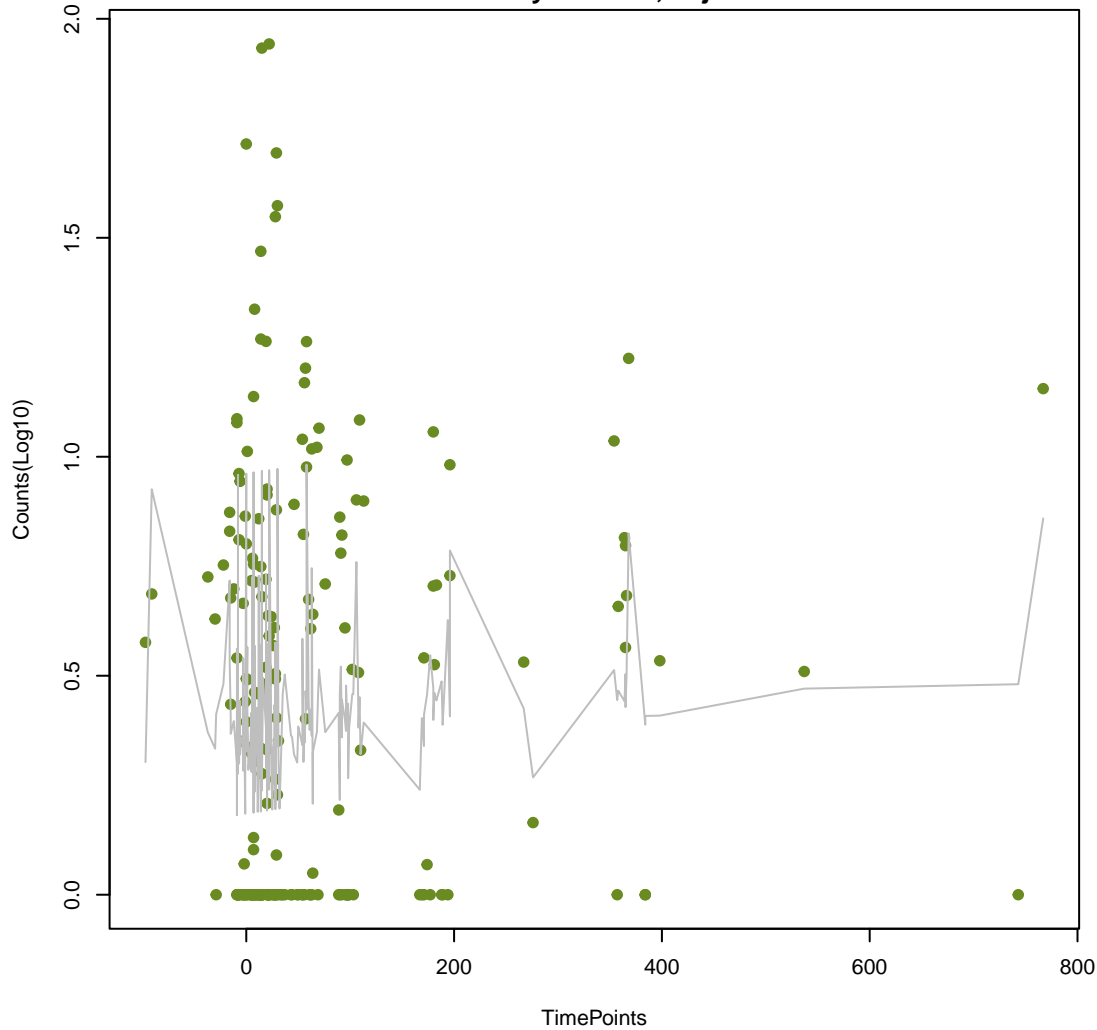
**Miscellaneous ABC-F subfamily ATP-binding cassette ribosomal protection protein**  
ANOVA P=0.605, adj. ANOVA-P=0.862  
Line vs. Poly F-P=1, adj. F-P=1



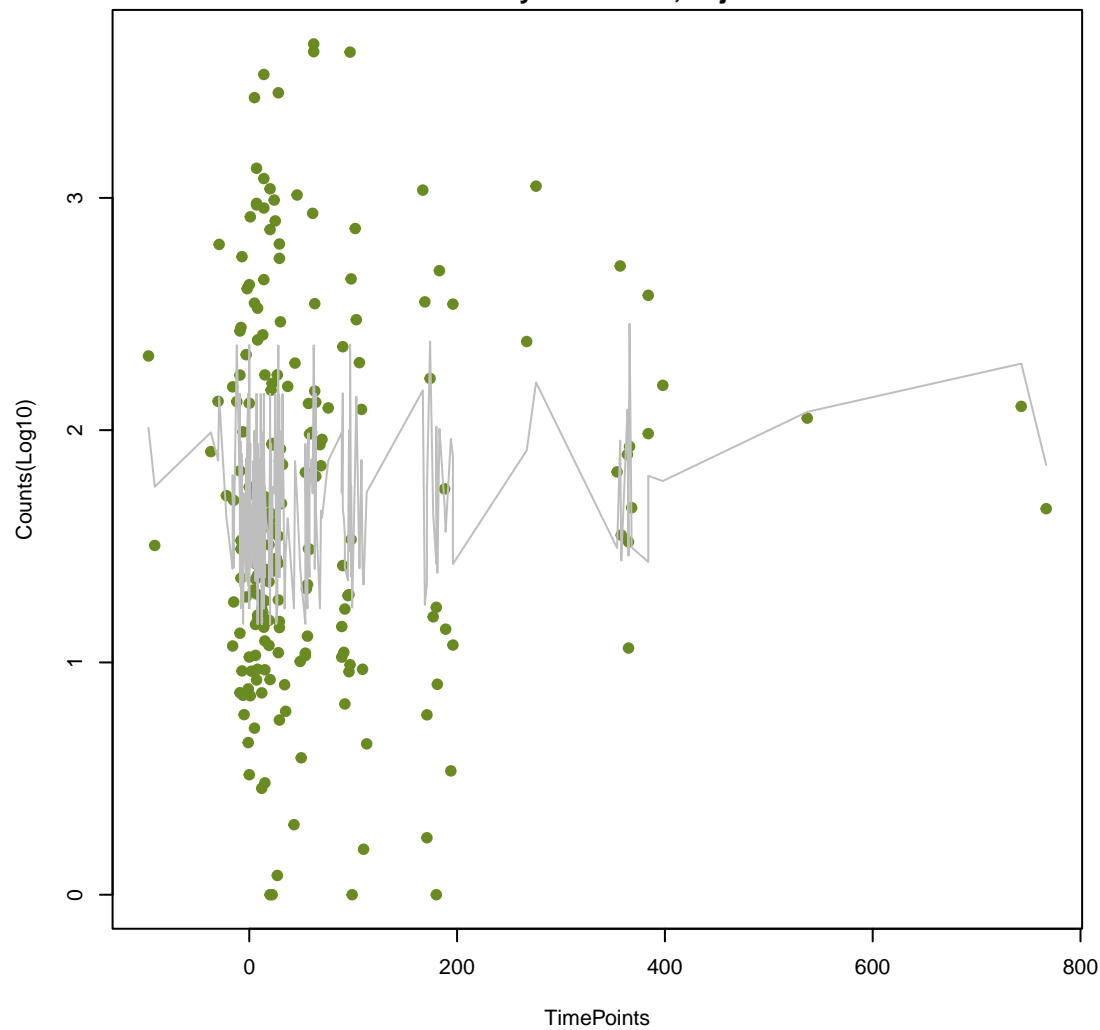
**methicillin resistant PBP2**  
ANOVA P=0.606, adj. ANOVA-P=0.862  
Line vs. Poly F-P=0.568, adj. F-P=1



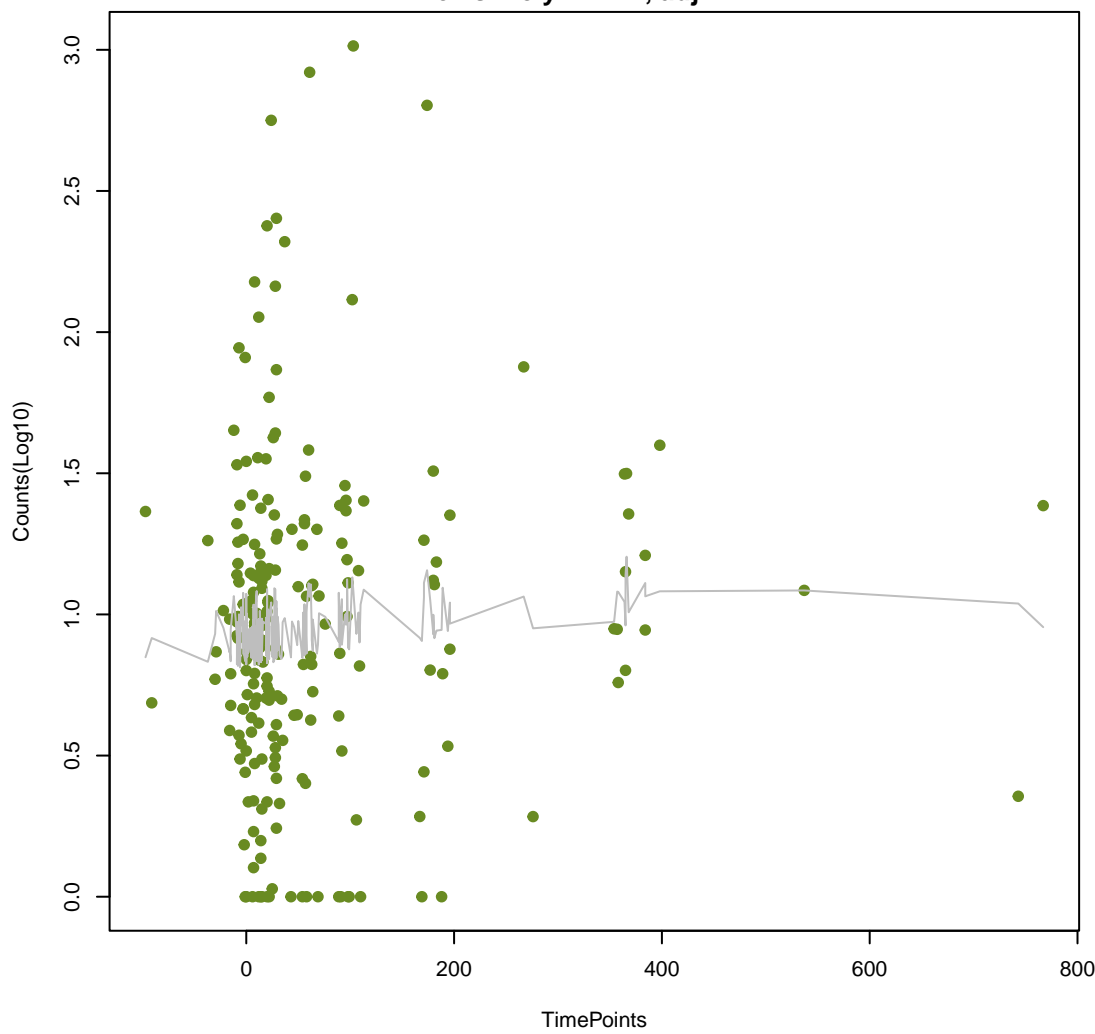
**CARB beta-lactamase**  
ANOVA P=0.609, adj. ANOVA-P=0.862  
Line vs. Poly F-P=0.6, adj. F-P=1



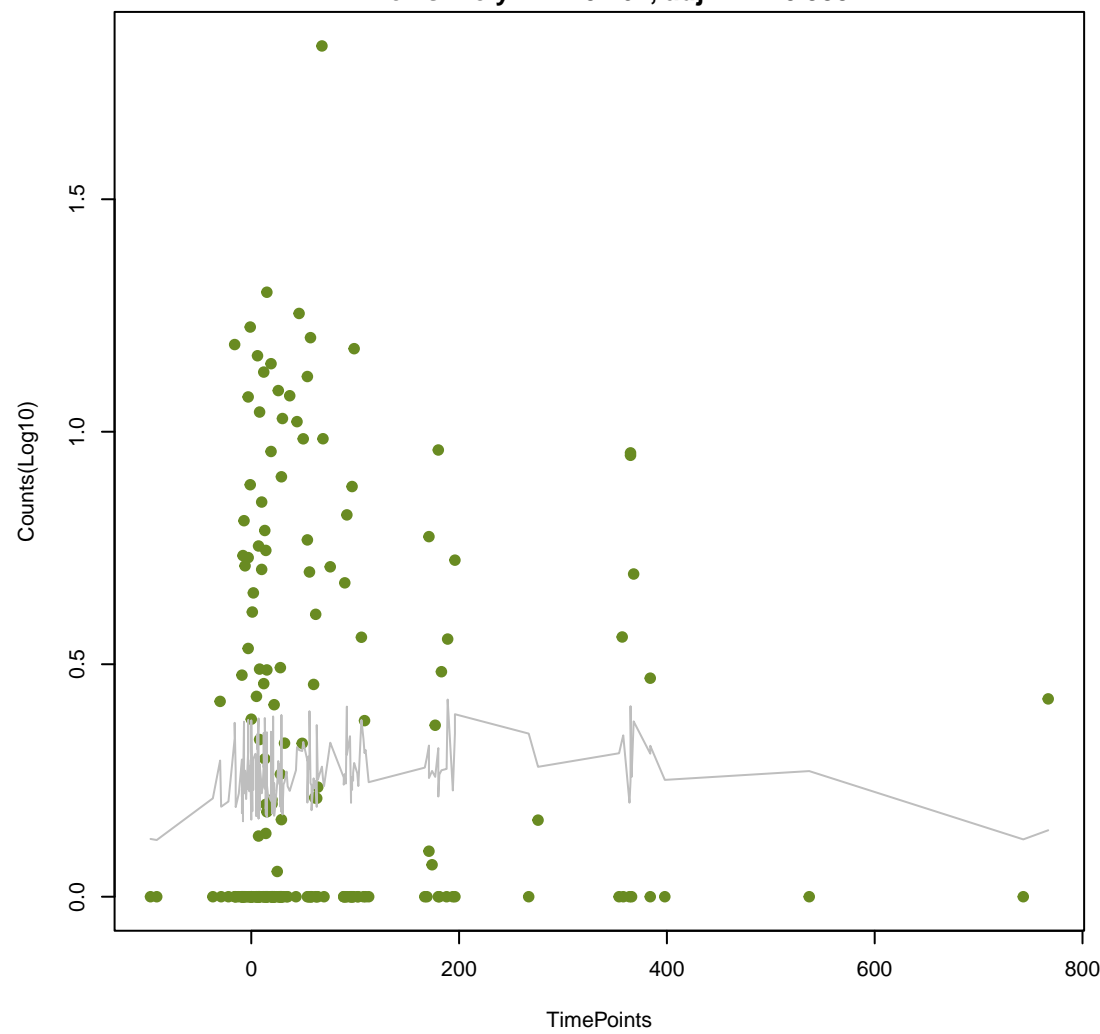
**AAC(6')**  
ANOVA P=0.625, adj. ANOVA-P=0.87  
Line vs. Poly F-P=0.659, adj. F-P=1



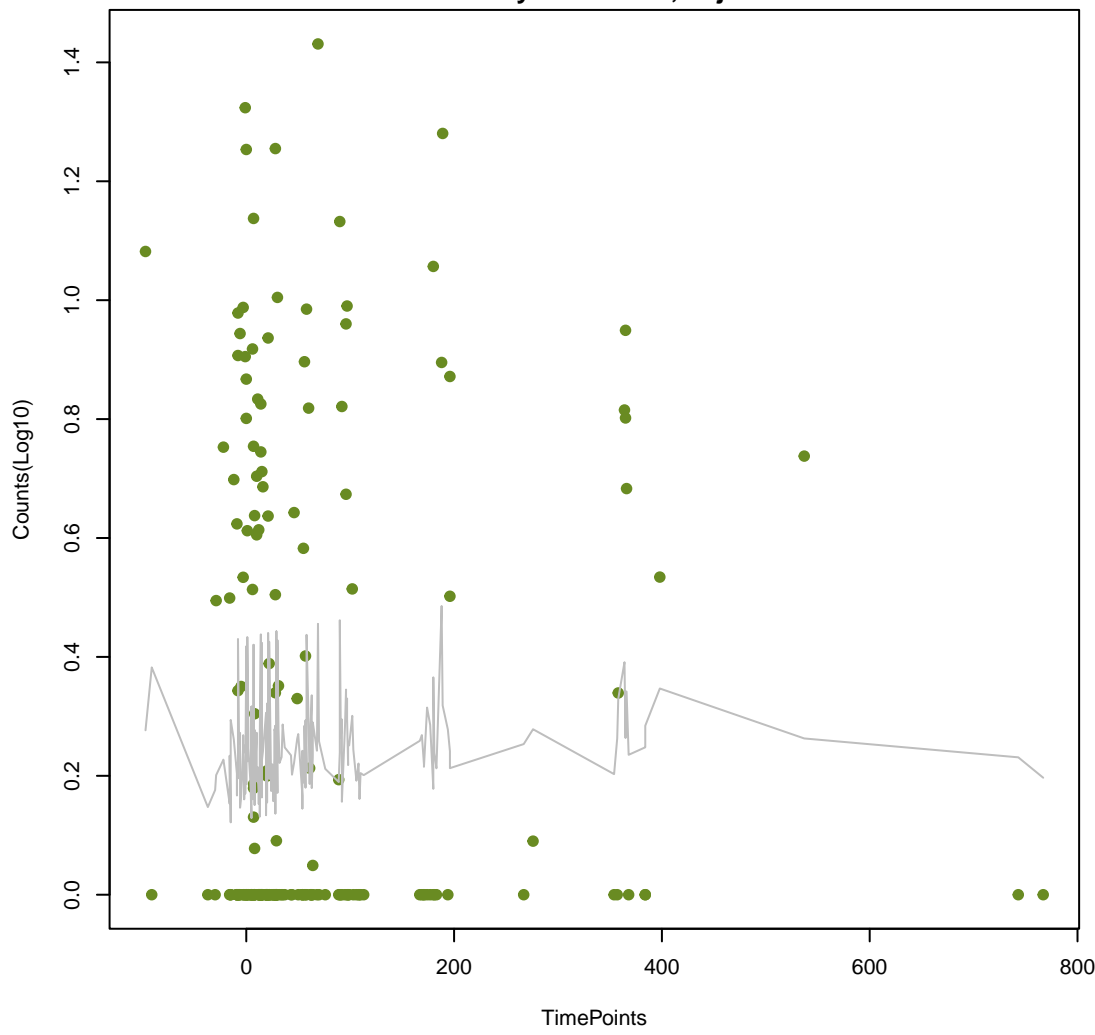
**quinolone resistance protein (qnr)**  
ANOVA P=0.631, adj. ANOVA-P=0.87  
Line vs. Poly F-P=1, adj. F-P=1



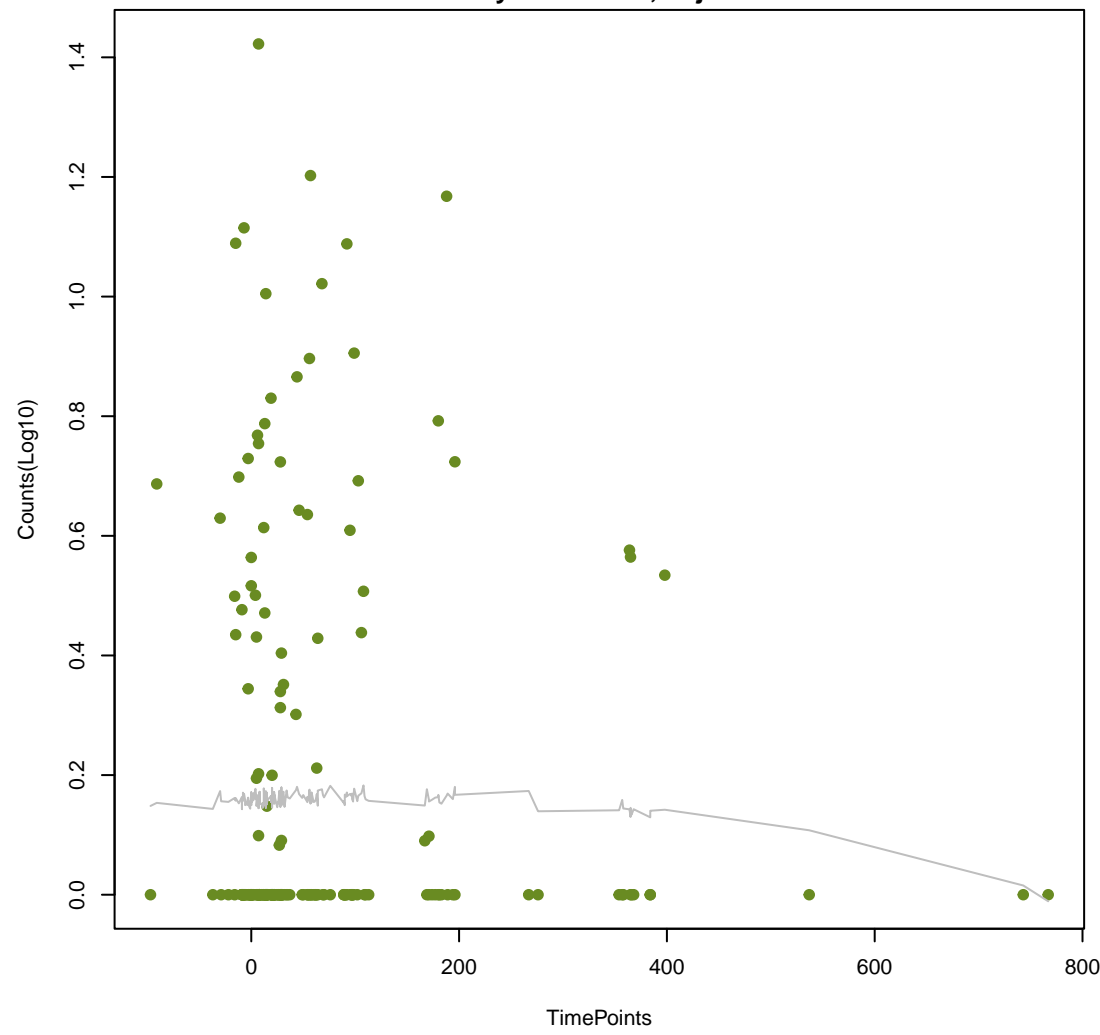
**FONA beta-lactamase**  
ANOVA P=0.639, adj. ANOVA-P=0.871  
Line vs. Poly F-P=0.164, adj. F-P=0.988



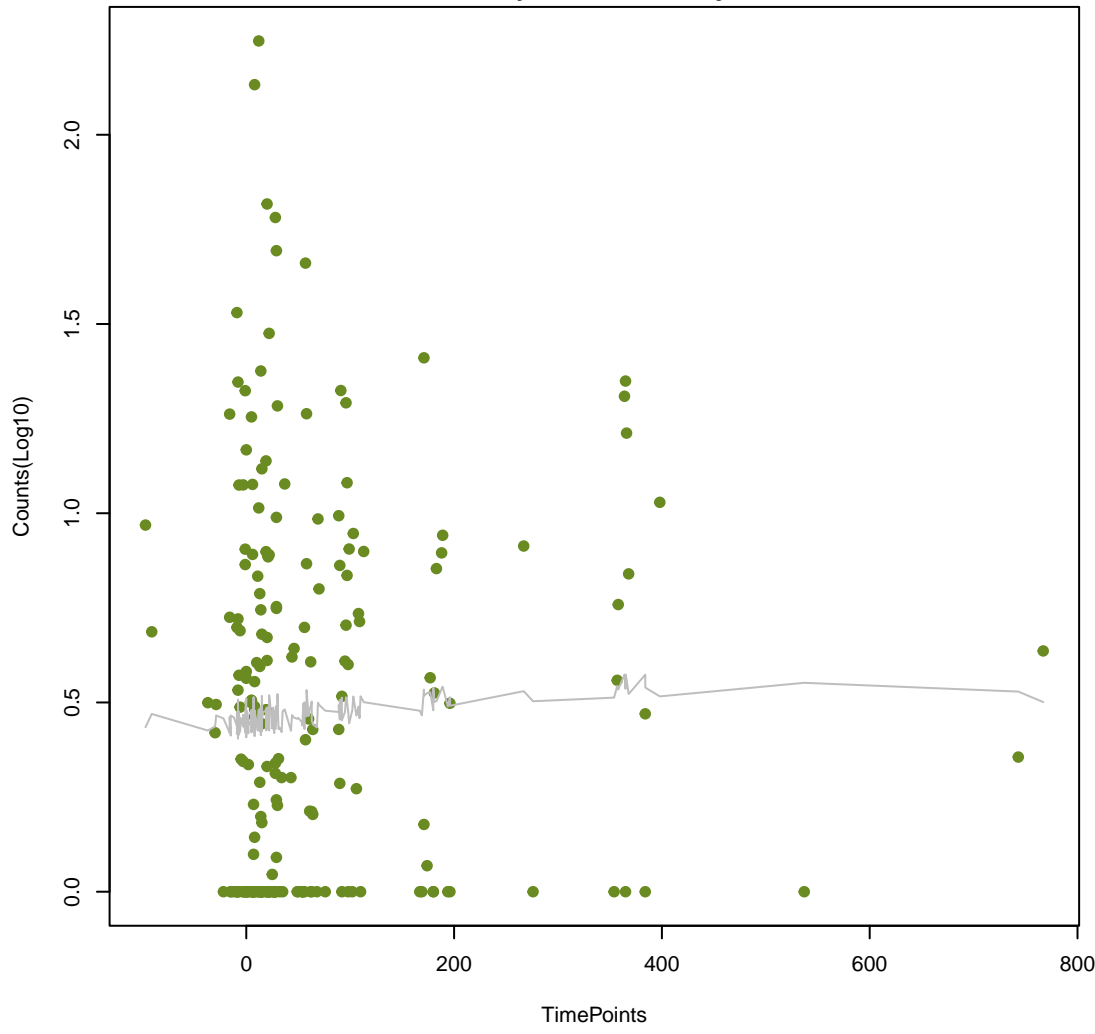
**SRT beta-lactamase**  
ANOVA P=0.691, adj. ANOVA-P=0.93  
Line vs. Poly F-P=0.626, adj. F-P=1



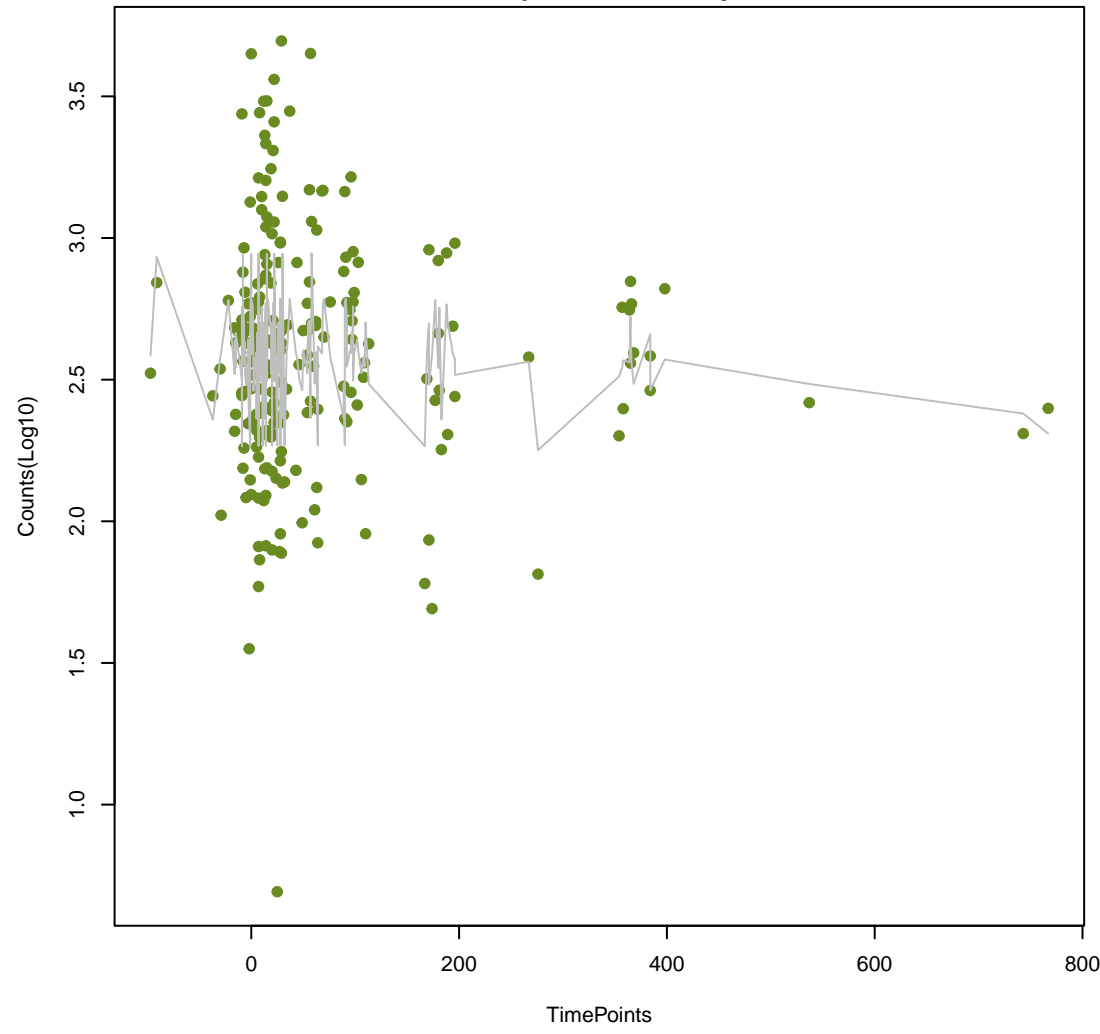
**RAHN beta-lactamase**  
ANOVA P=0.701, adj. ANOVA-P=0.932  
Line vs. Poly F-P=0.242, adj. F-P=0.988



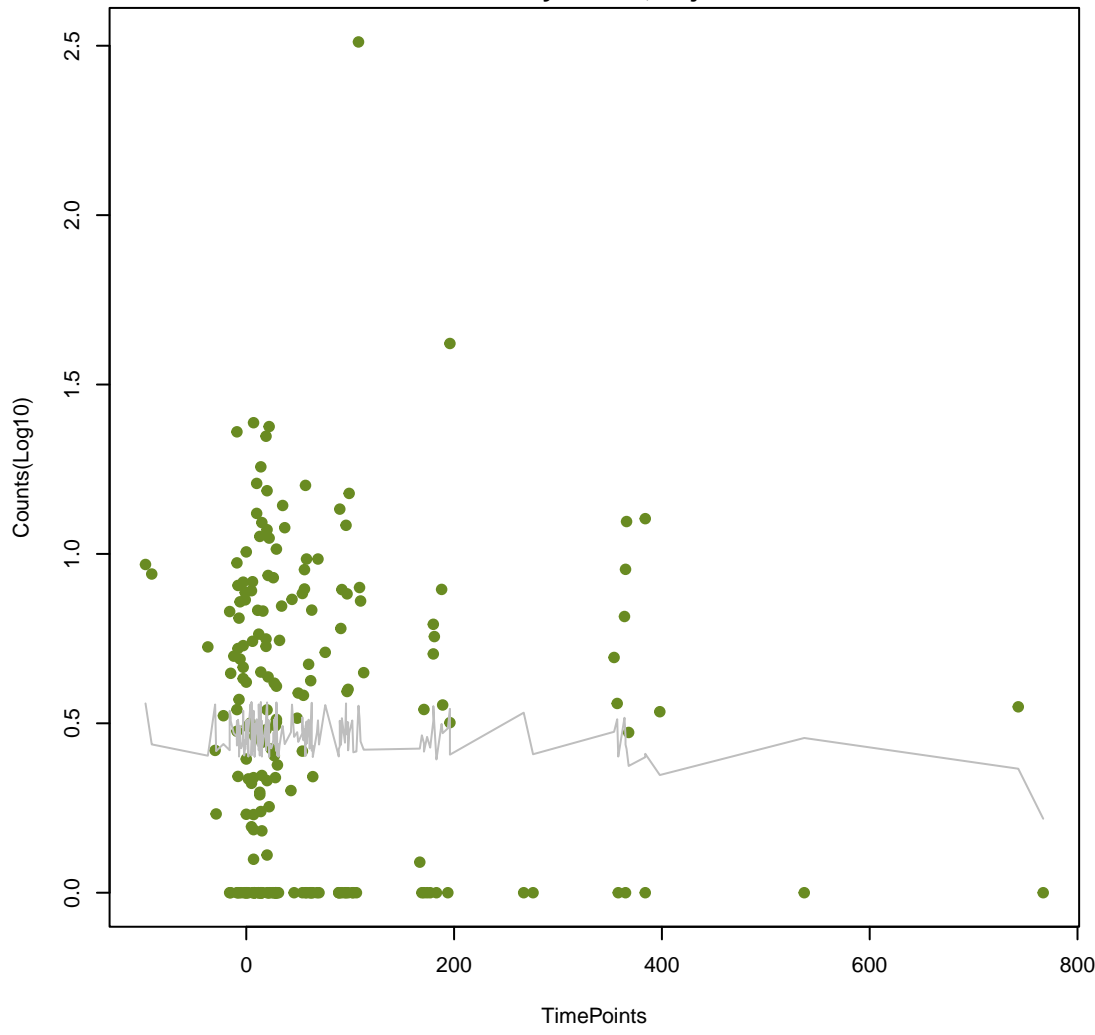
**BlaB beta-lactamase**  
ANOVA P=0.723, adj. ANOVA-P=0.944  
Line vs. Poly F-P=0.725, adj. F-P=1



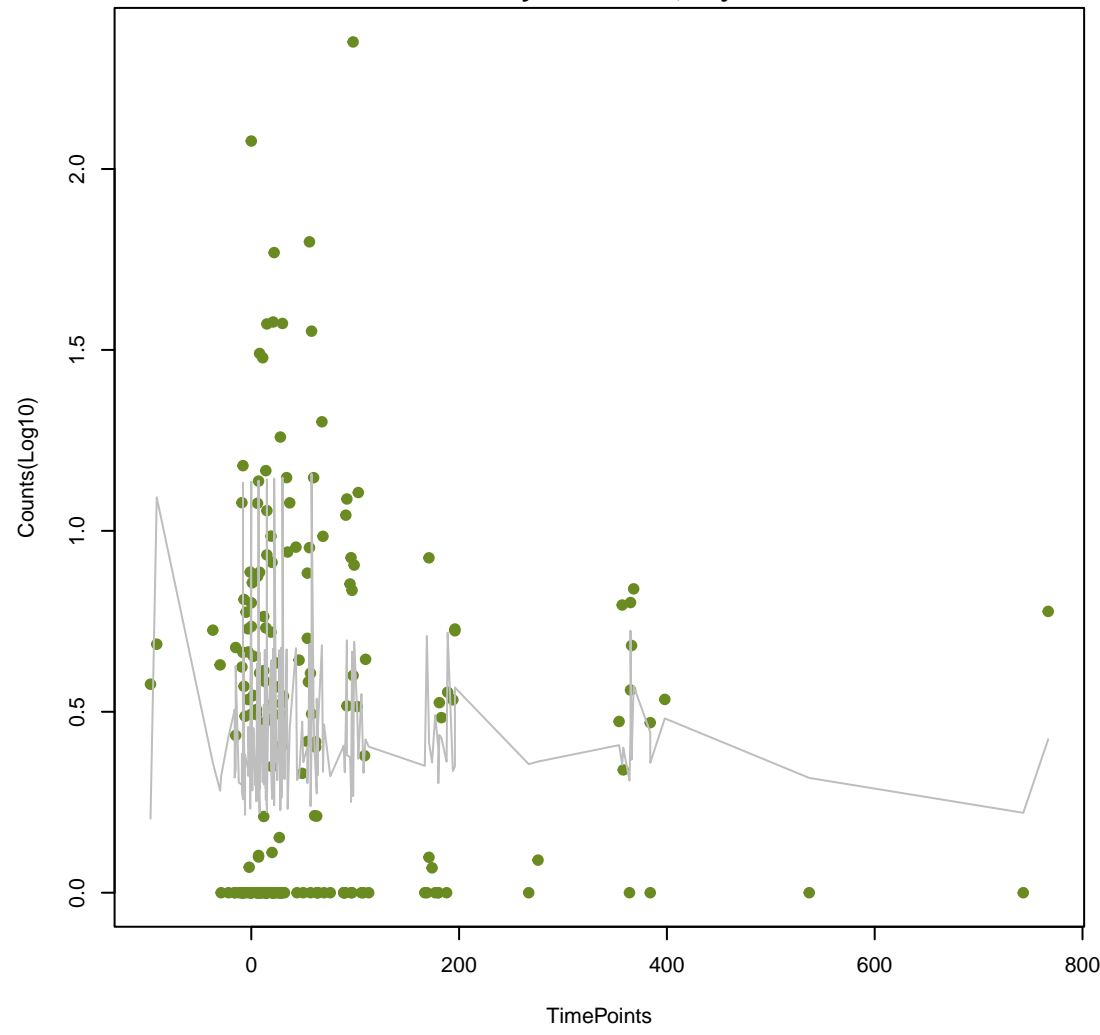
**small multidrug resistance (SMR) antibiotic efflux pump**  
ANOVA P=0.727, adj. ANOVA-P=0.944  
Line vs. Poly F-P=0.604, adj. F-P=1



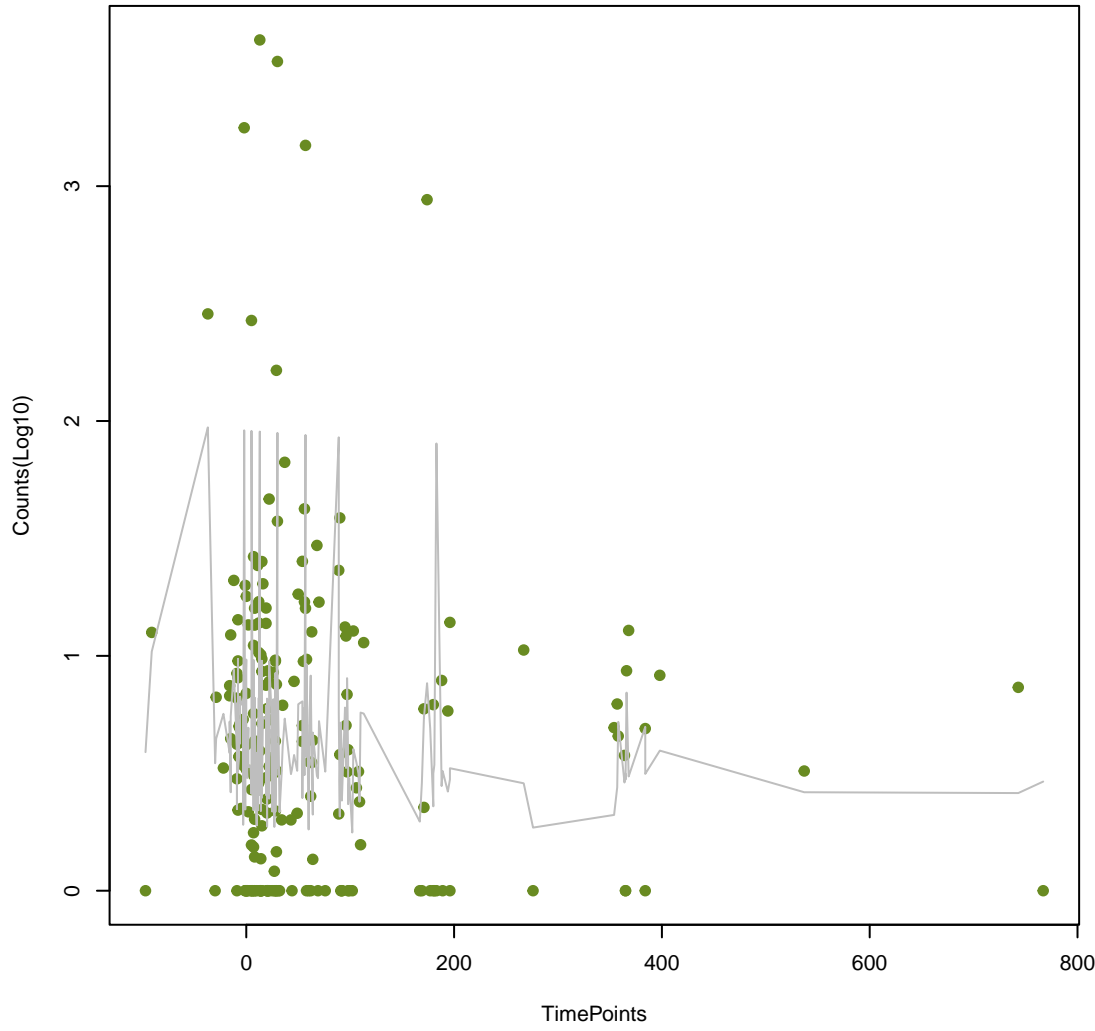
**MCR phosphoethanolamine transferase**  
ANOVA P=0.763, adj. ANOVA-P=0.968  
Line vs. Poly F-P=1, adj. F-P=1



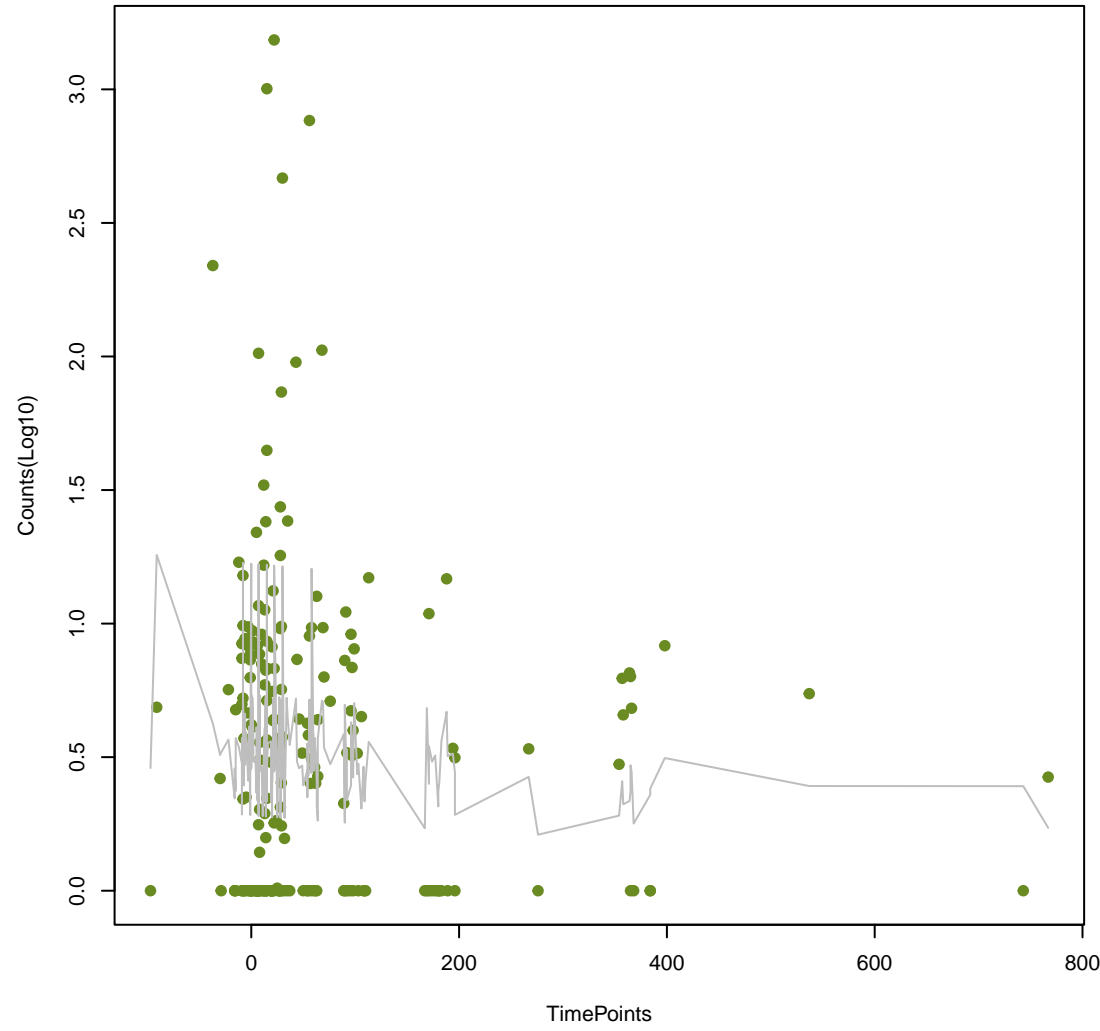
**ADC beta-lactamase without carbapenemase activity**  
ANOVA P=0.769, adj. ANOVA-P=0.968  
Line vs. Poly F-P=0.353, adj. F-P=1



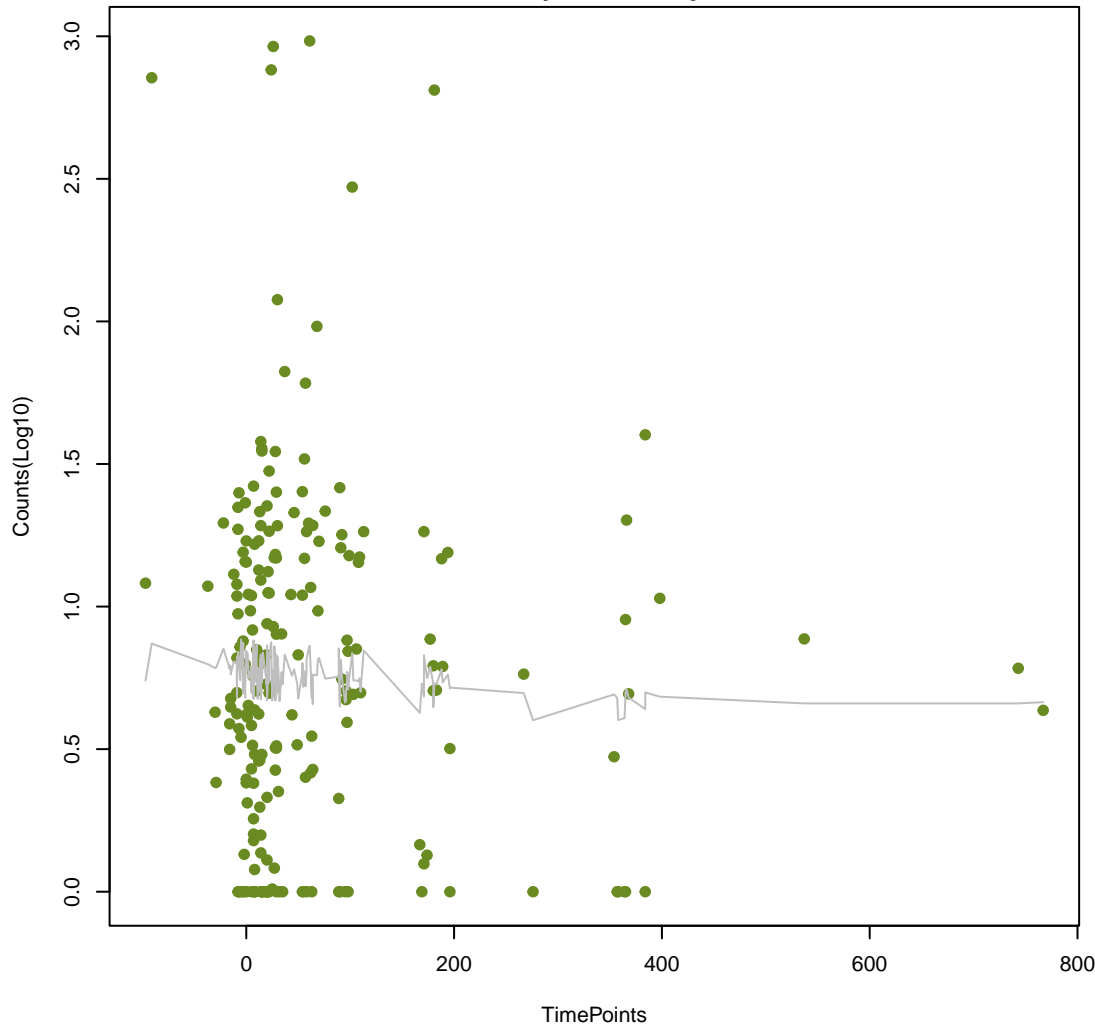
**CTX-M beta-lactamase**  
ANOVA P=0.793, adj. ANOVA-P=0.968  
Line vs. Poly F-P=1, adj. F-P=1



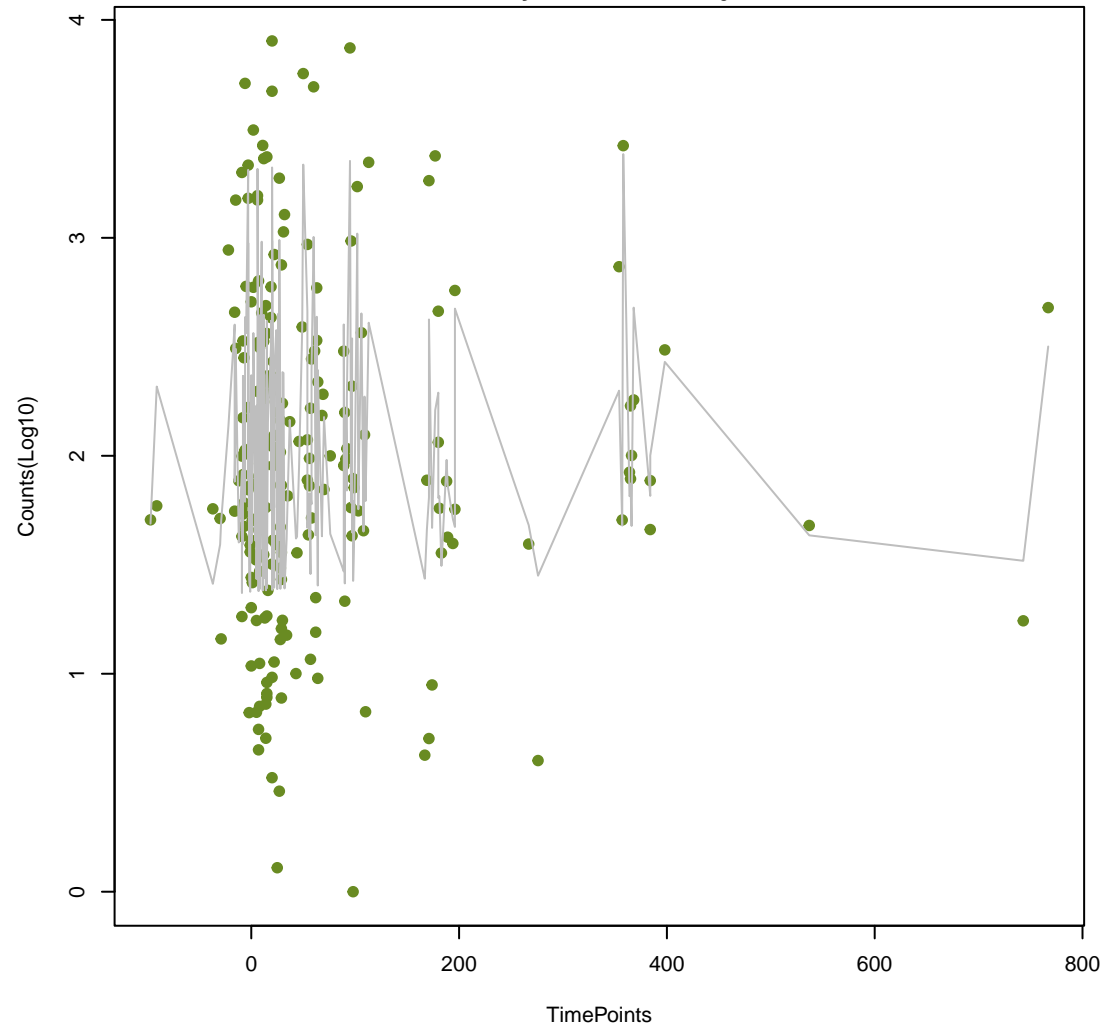
**Cfr 23S ribosomal RNA methyltransferase**  
ANOVA P=0.804, adj. ANOVA-P=0.968  
Line vs. Poly F-P=1, adj. F-P=1



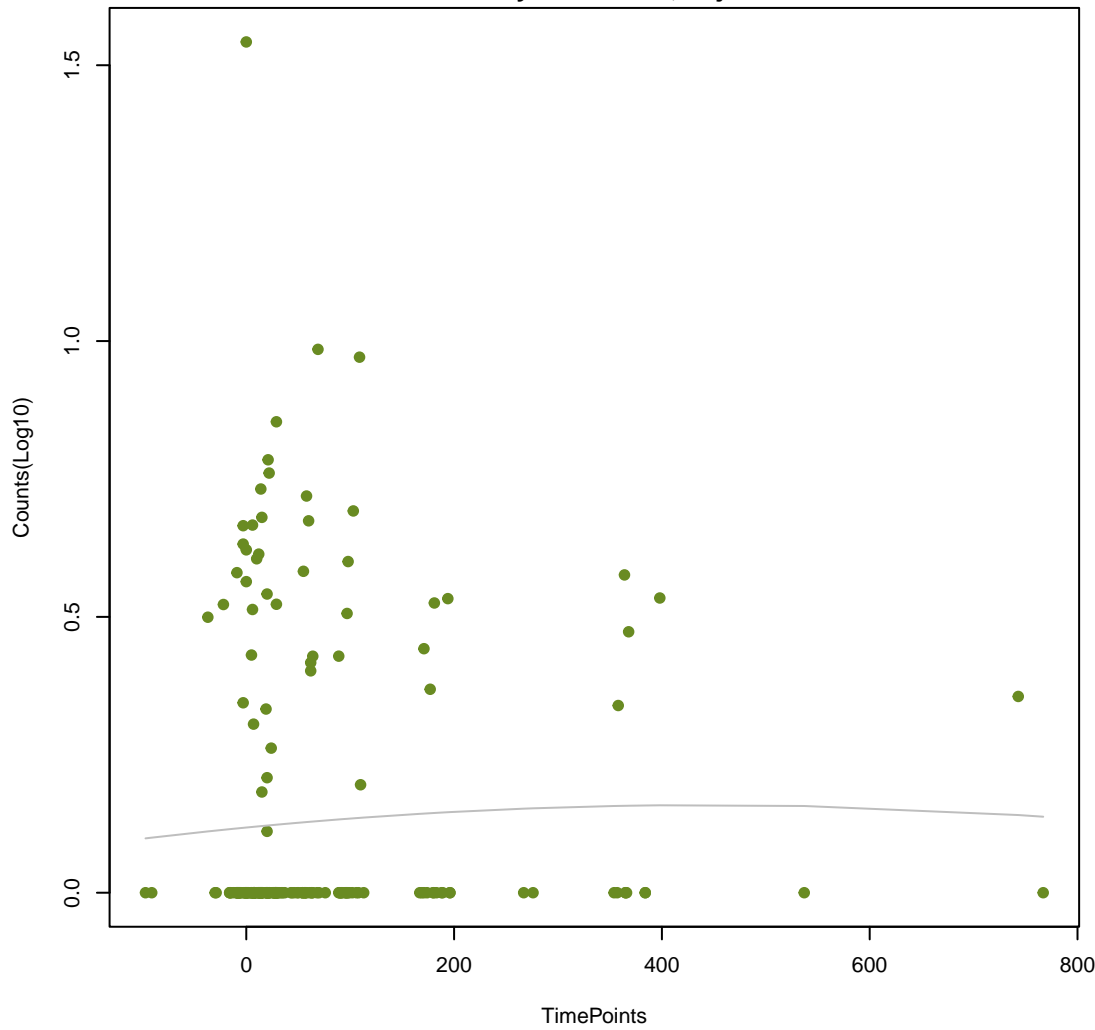
**SHV beta-lactamase**  
ANOVA P=0.806, adj. ANOVA-P=0.968  
Line vs. Poly F-P=1, adj. F-P=1



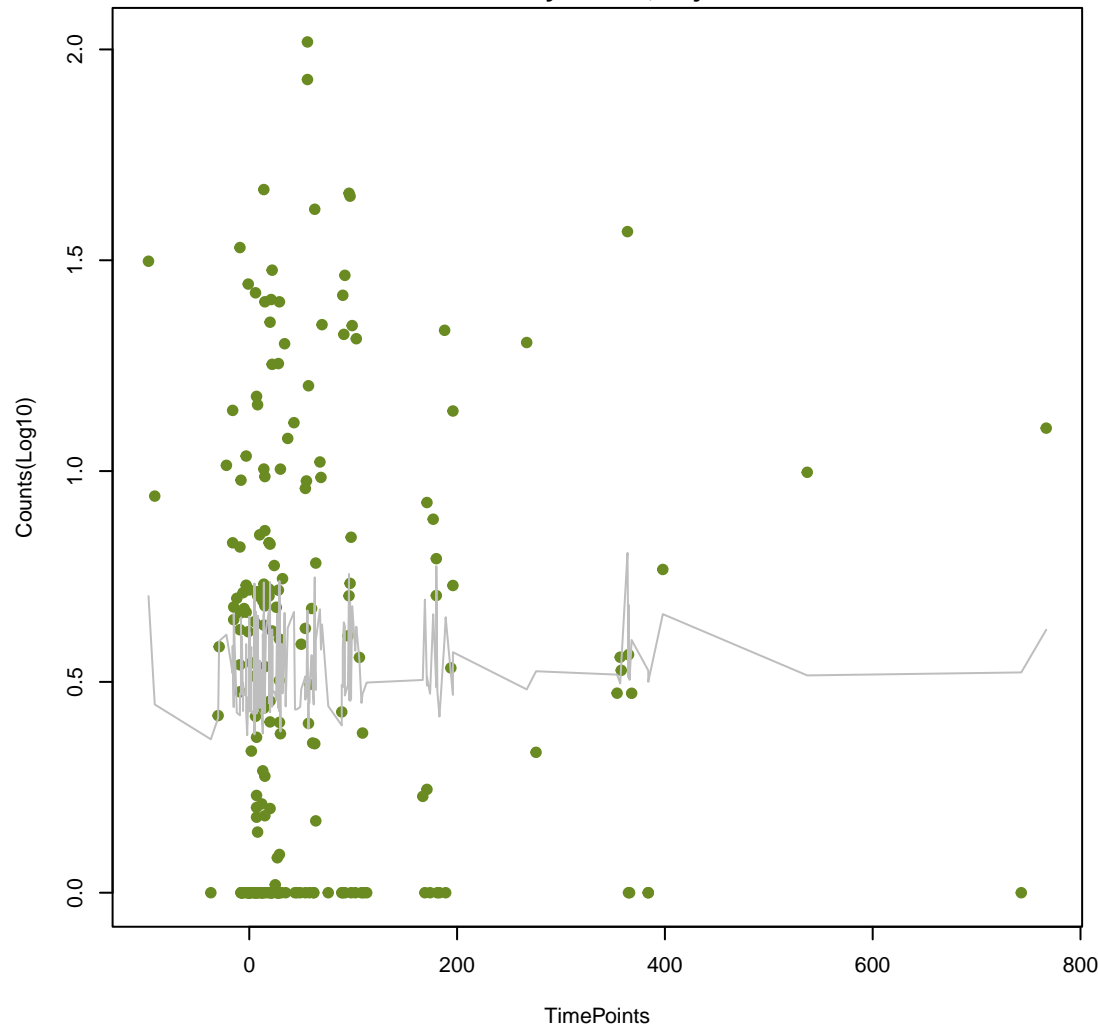
**tetracycline inactivation enzyme**  
ANOVA P=0.81, adj. ANOVA-P=0.968  
Line vs. Poly F-P=0.499, adj. F-P=1



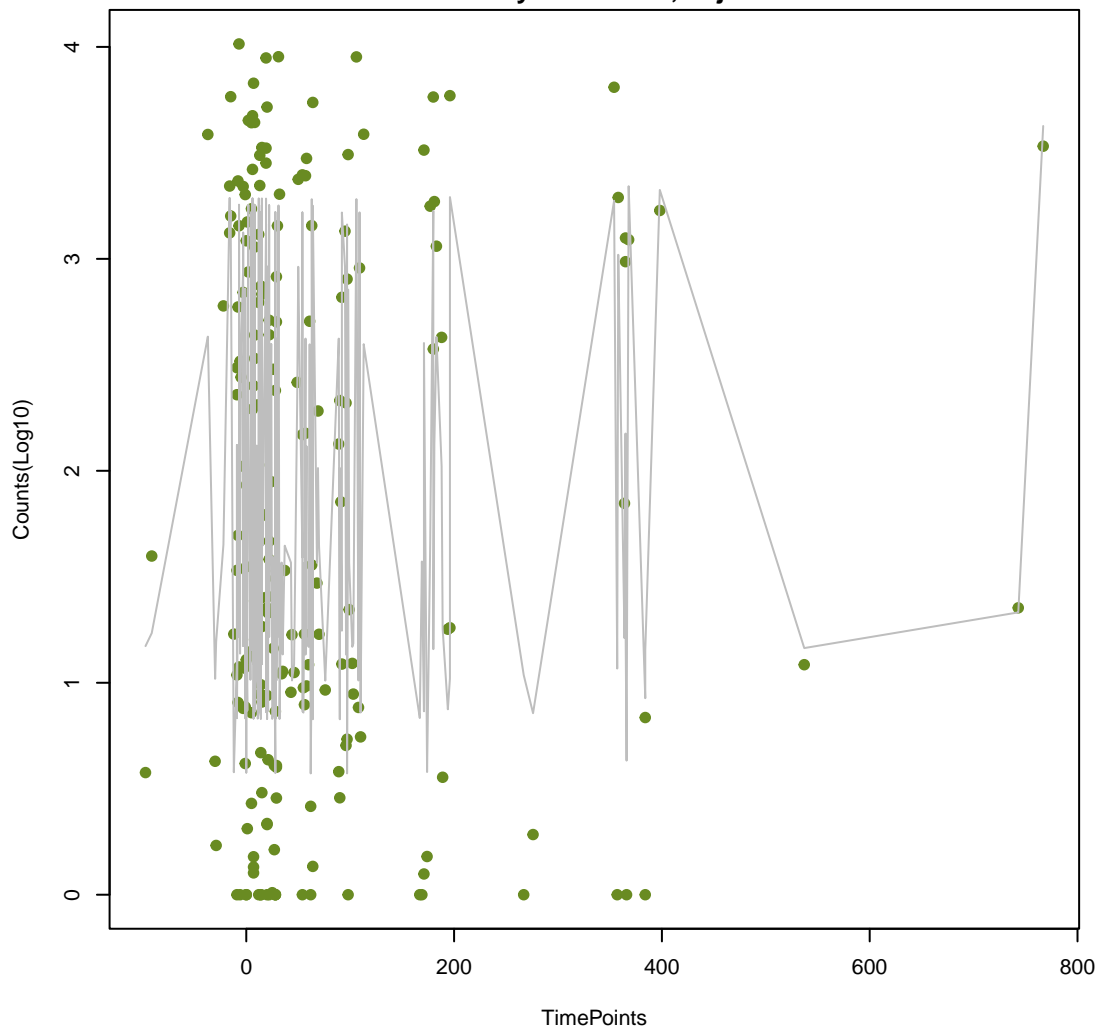
**PST beta-lactamase**  
ANOVA P=0.813, adj. ANOVA-P=0.968  
Line vs. Poly F-P=0.738, adj. F-P=1



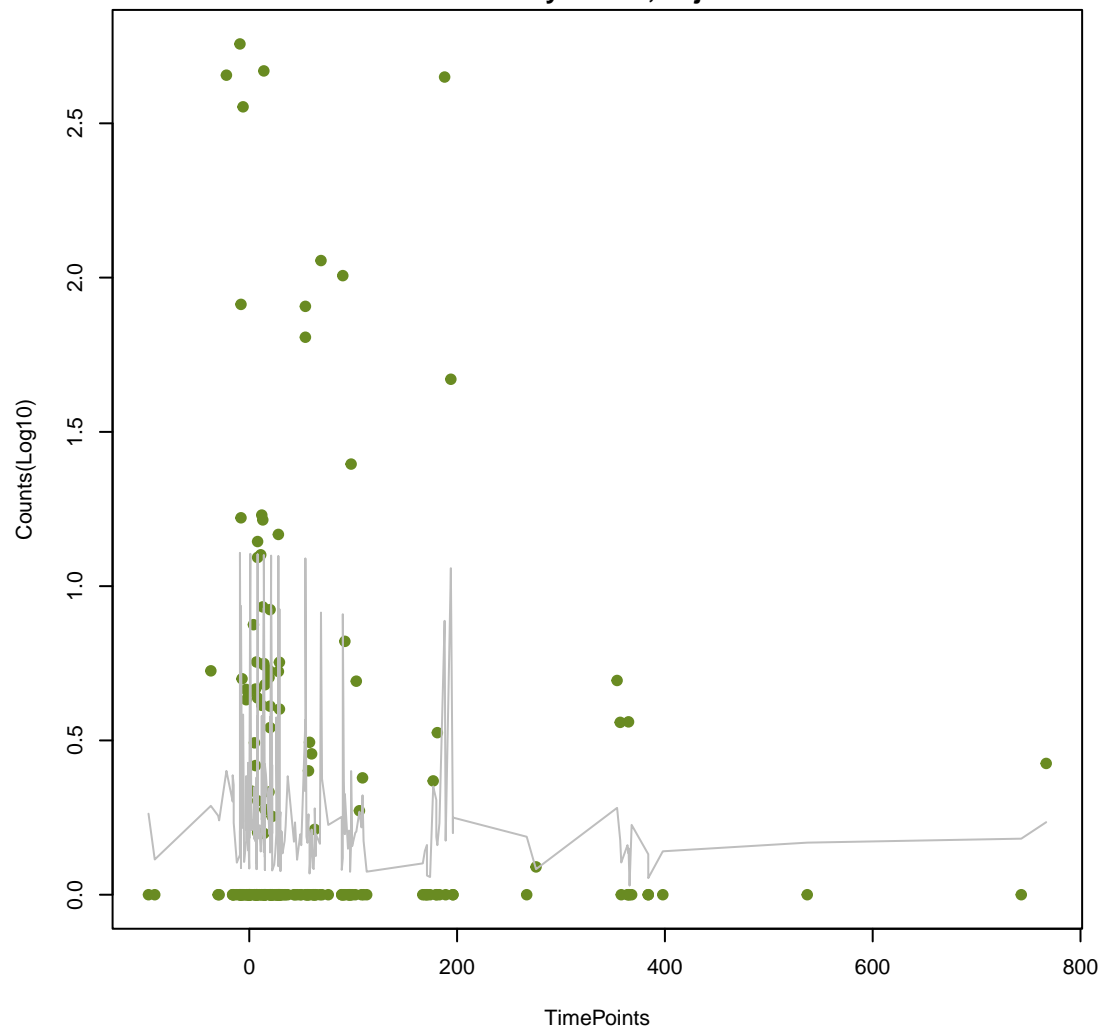
**IMP beta-lactamase**  
ANOVA P=0.817, adj. ANOVA-P=0.968  
Line vs. Poly F-P=1, adj. F-P=1



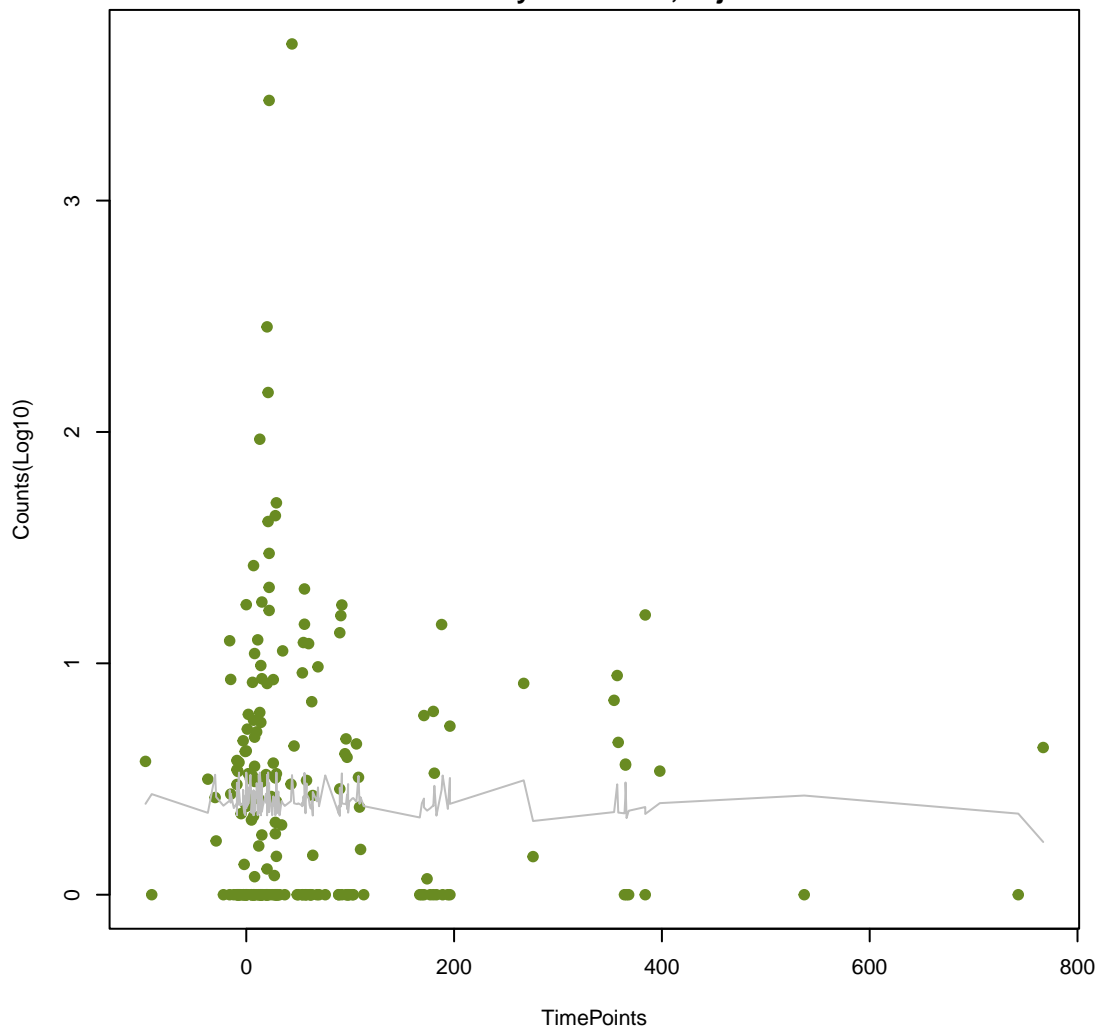
**CfxA beta-lactamase**  
ANOVA P=0.838, adj. ANOVA-P=0.982  
Line vs. Poly F-P=0.848, adj. F-P=1



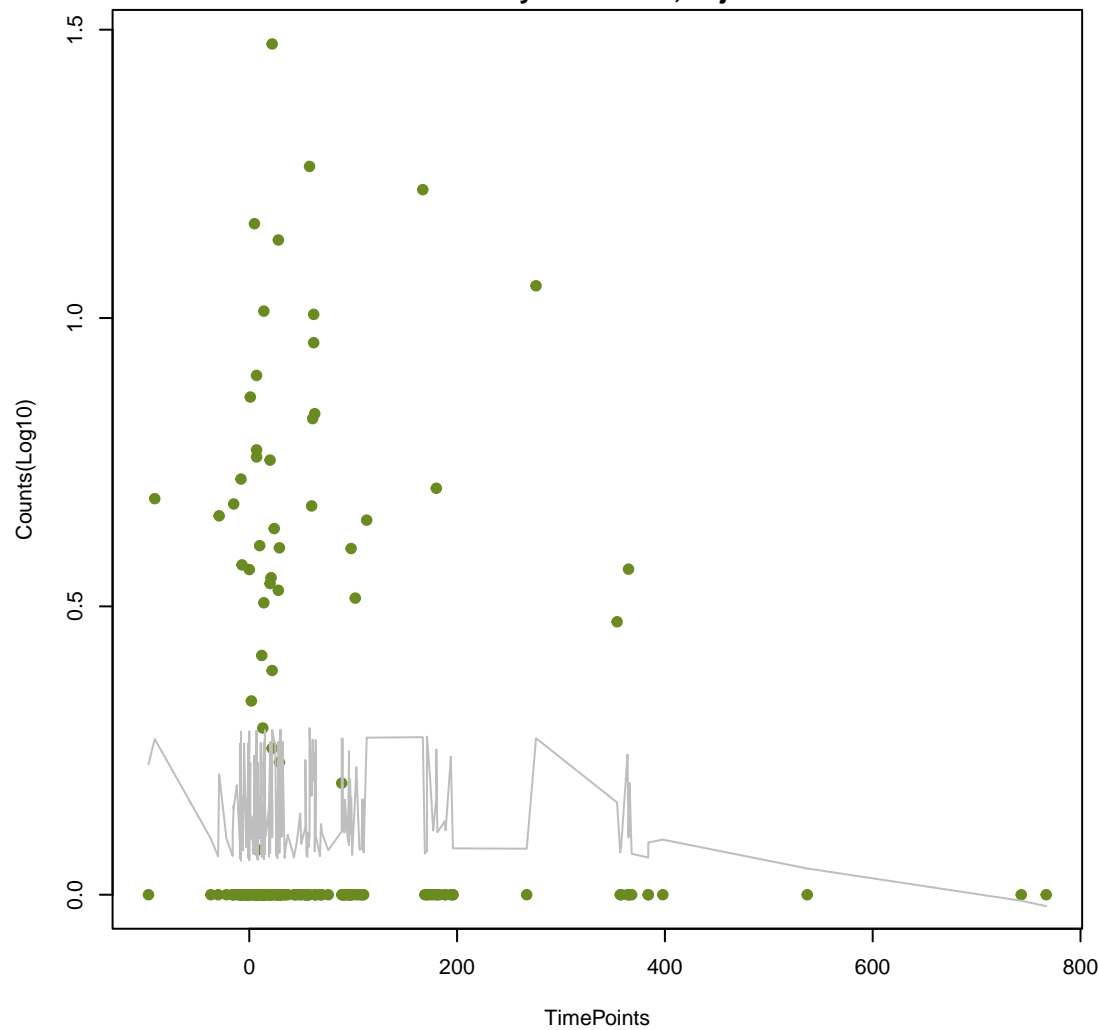
**CepA beta-lactamase**  
ANOVA P=0.847, adj. ANOVA-P=0.982  
Line vs. Poly F-P=1, adj. F-P=1



**vga-type ABC-F protein**  
ANOVA P=0.88, adj. ANOVA-P=0.991  
Line vs. Poly F-P=0.753, adj. F-P=1

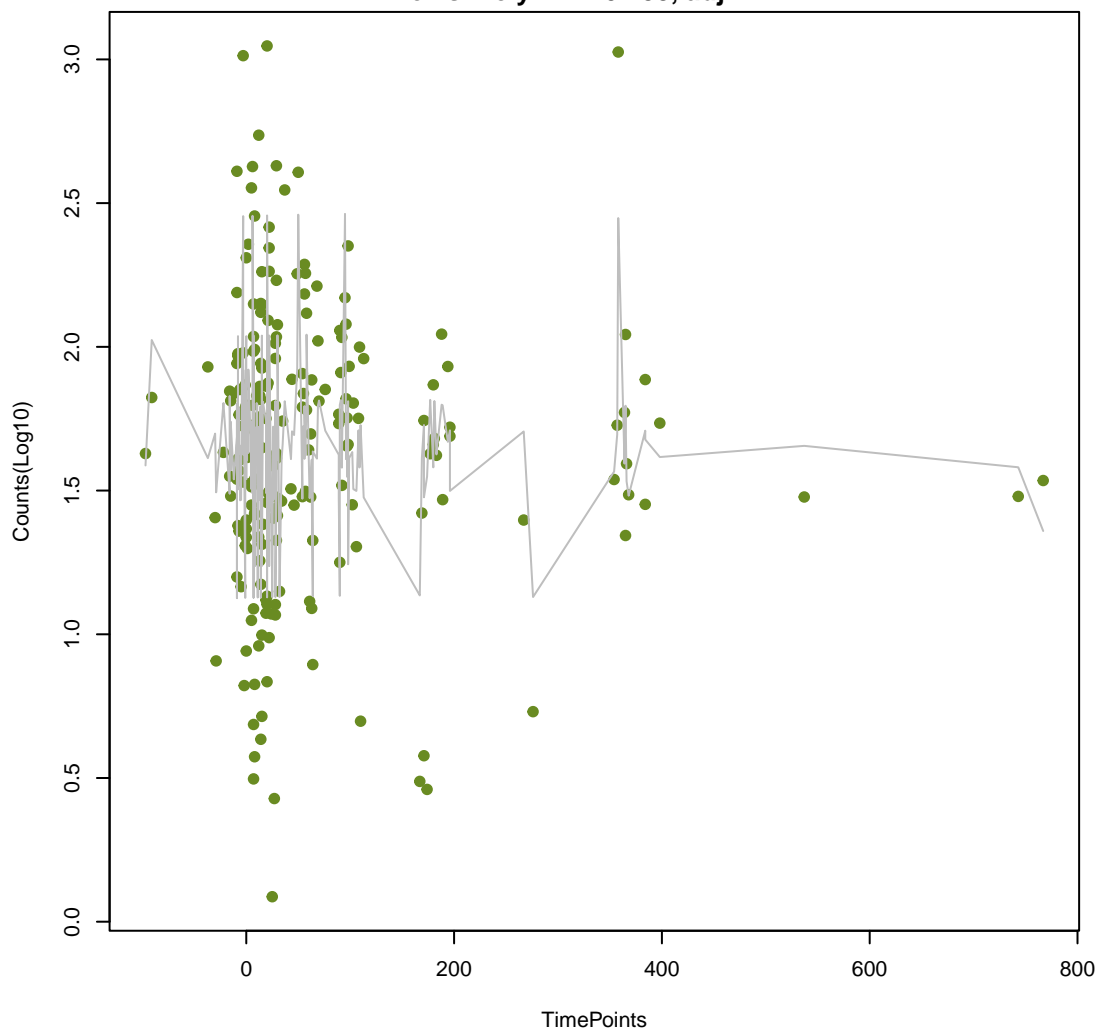


**CSA beta-lactamase**  
ANOVA P=0.898, adj. ANOVA-P=0.991  
Line vs. Poly F-P=0.871, adj. F-P=1

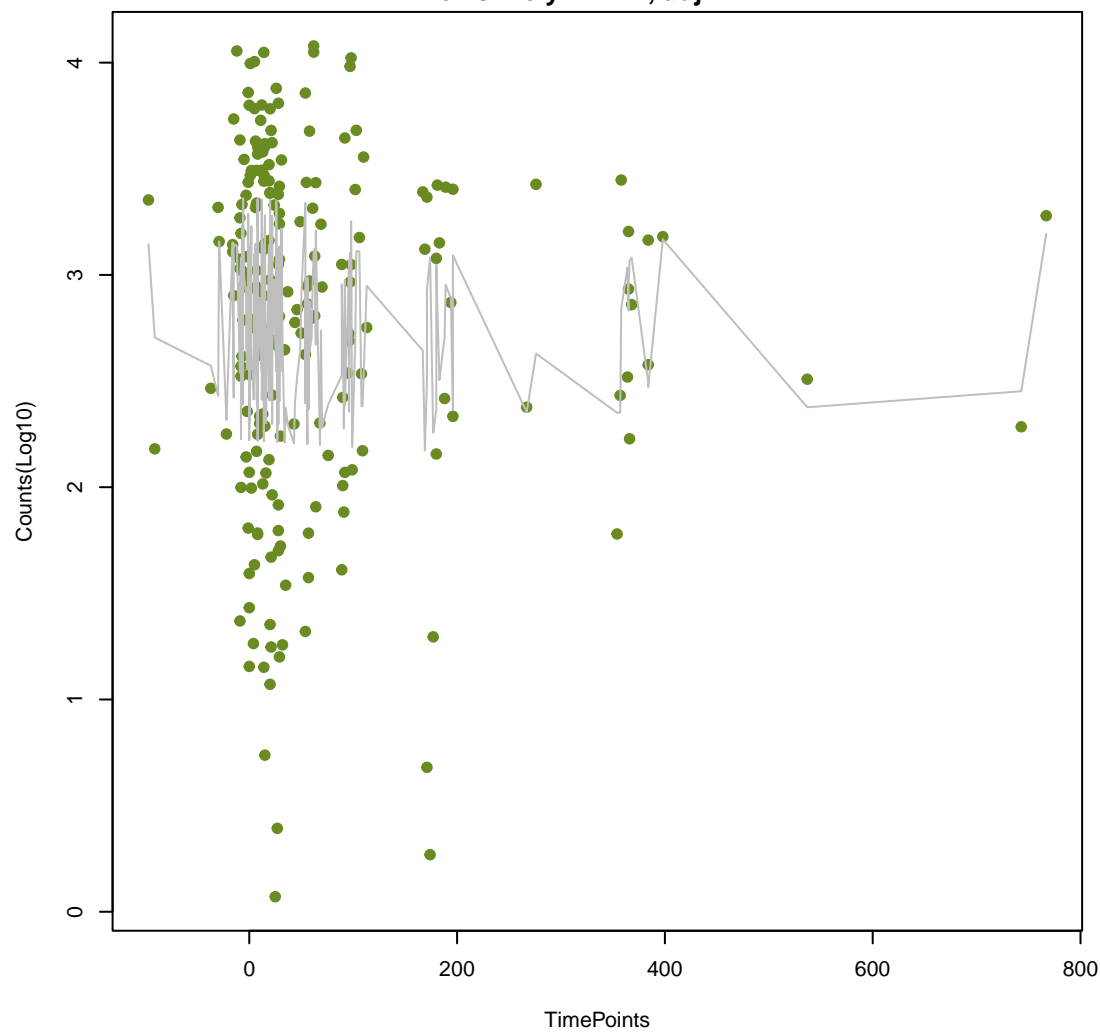




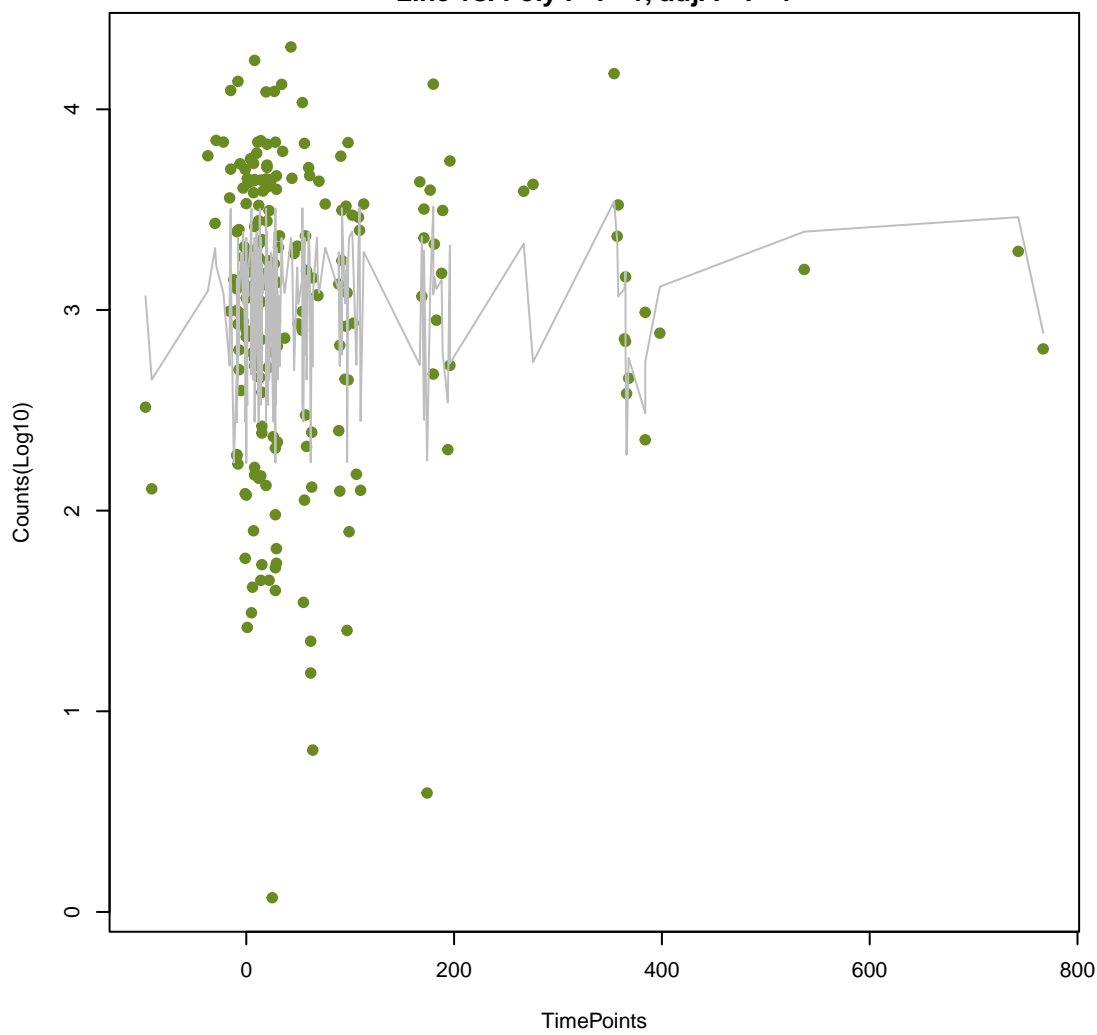
**OXA beta-lactamase**  
ANOVA P=0.902, adj. ANOVA-P=0.991  
Line vs. Poly F-P=0.738, adj. F-P=1



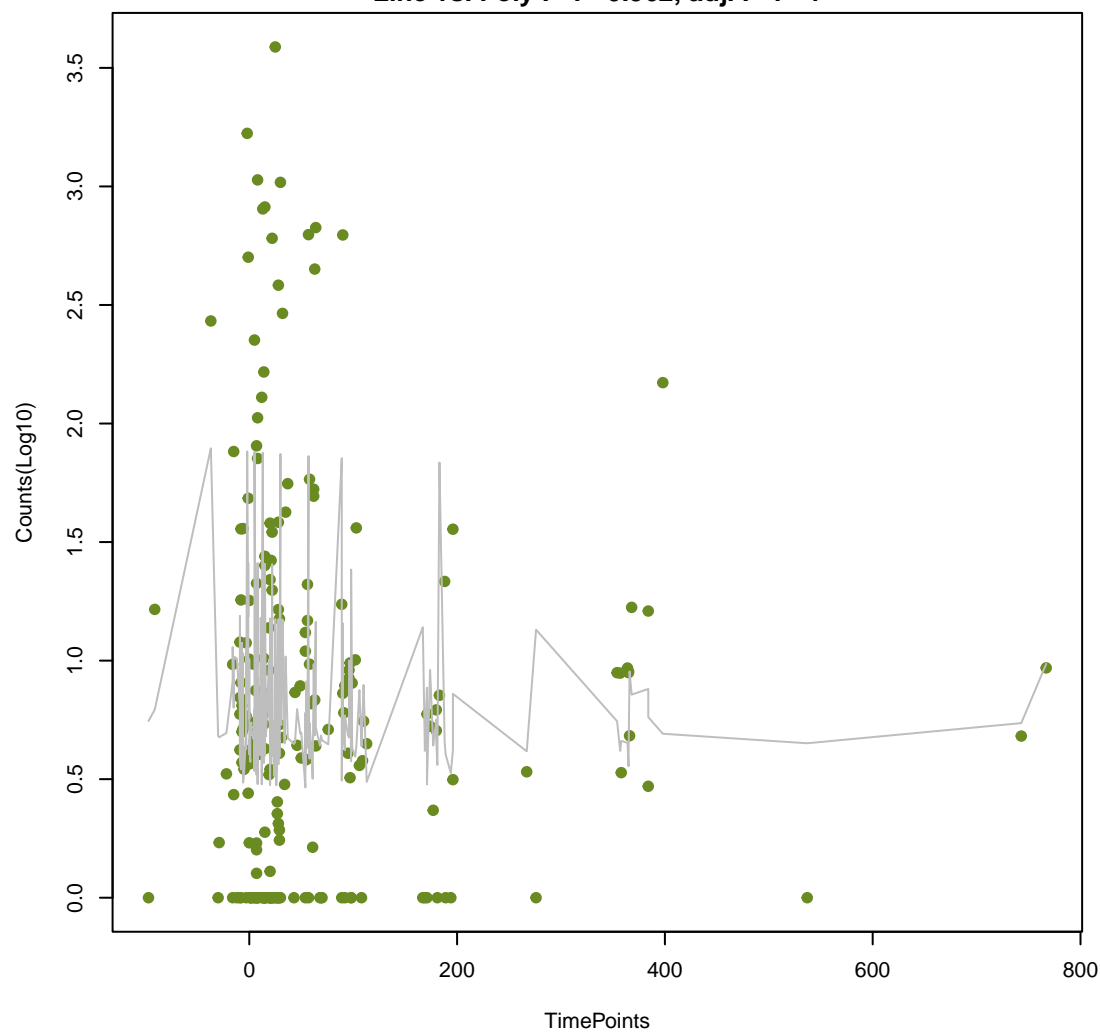
**msr-type ABC-F protein**  
ANOVA P=0.915, adj. ANOVA-P=0.991  
Line vs. Poly F-P=1, adj. F-P=1



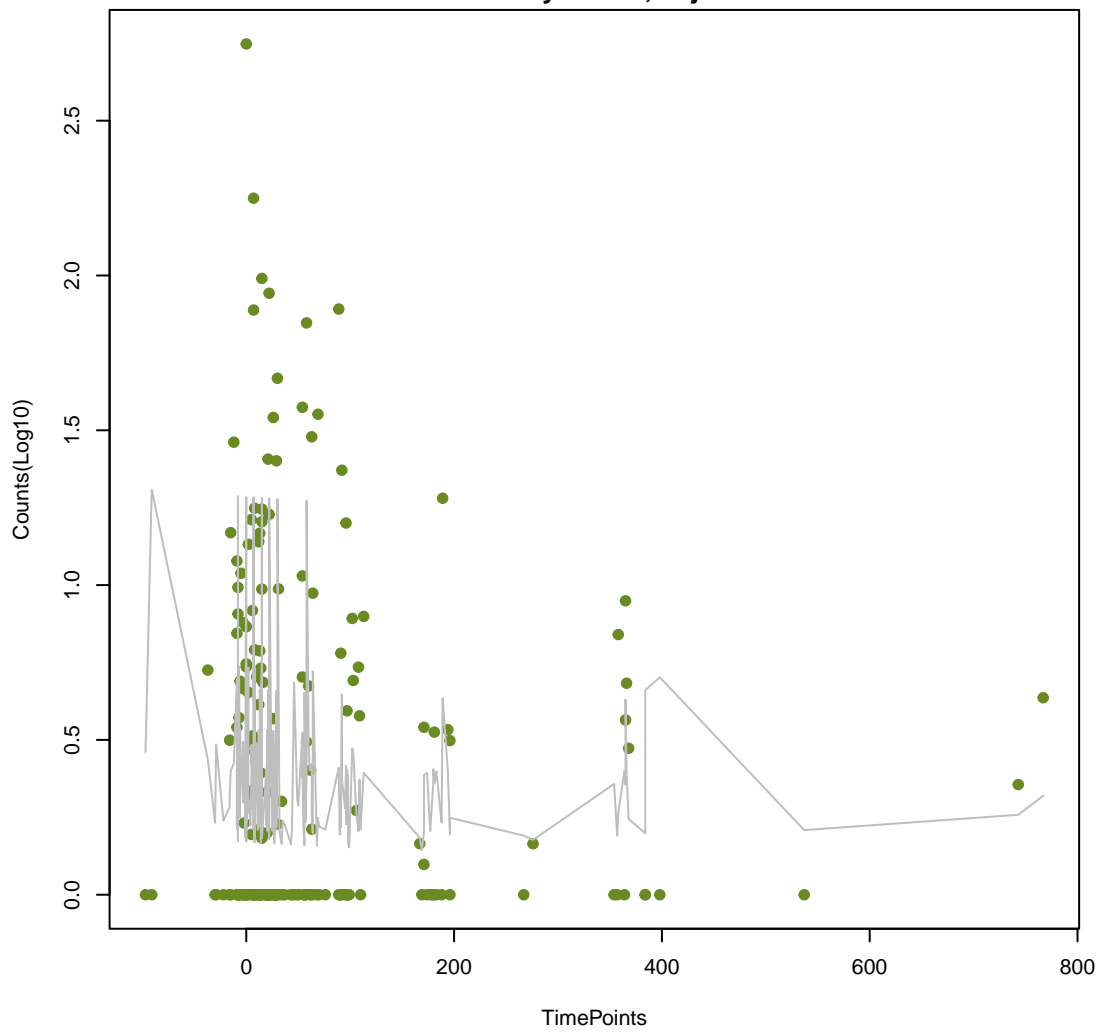
**Erm 23S ribosomal RNA methyltransferase**  
ANOVA P=0.923, adj. ANOVA-P=0.991  
Line vs. Poly F-P=1, adj. F-P=1



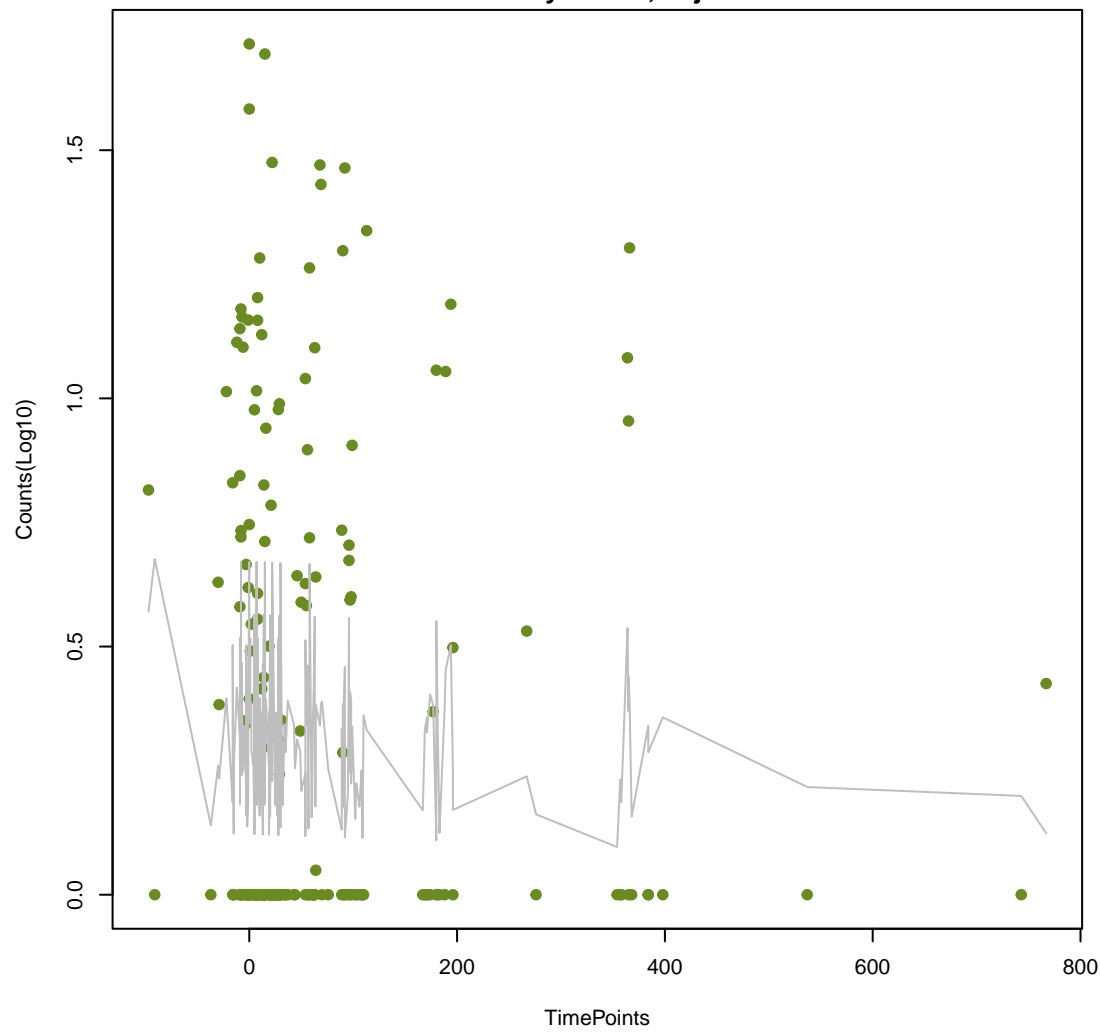
**ANT(3")**  
ANOVA P=0.93, adj. ANOVA-P=0.991  
Line vs. Poly F-P=0.962, adj. F-P=1



**ole glycosyltransferase**  
ANOVA P=0.939, adj. ANOVA-P=0.991  
Line vs. Poly F-P=1, adj. F-P=1



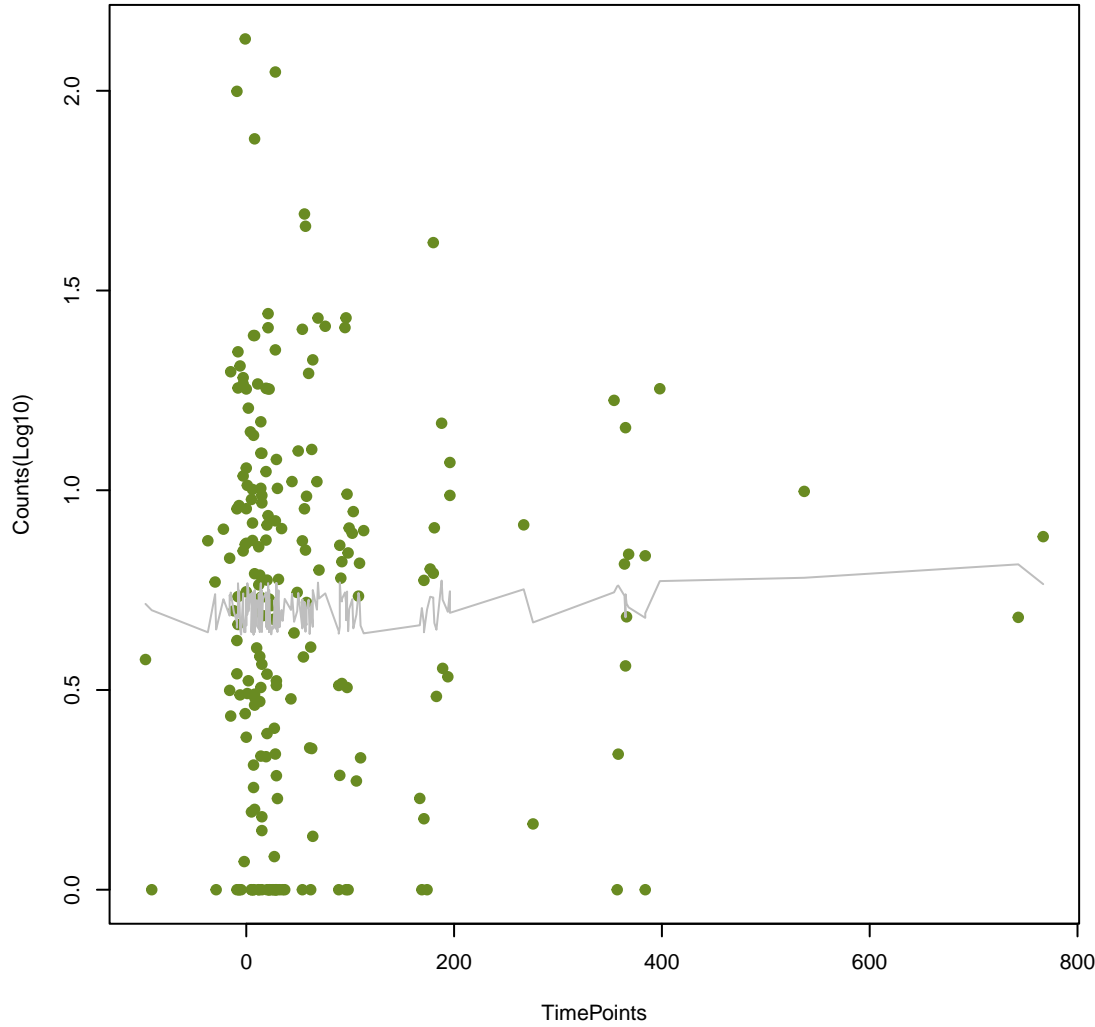
**Rm3 family beta-lactamase**  
ANOVA P=0.959, adj. ANOVA-P=0.991  
Line vs. Poly F-P=1, adj. F-P=1



**ADC beta-lactamases pending classification for carbapenemase activity**

ANOVA P=0.963, adj. ANOVA-P=0.991

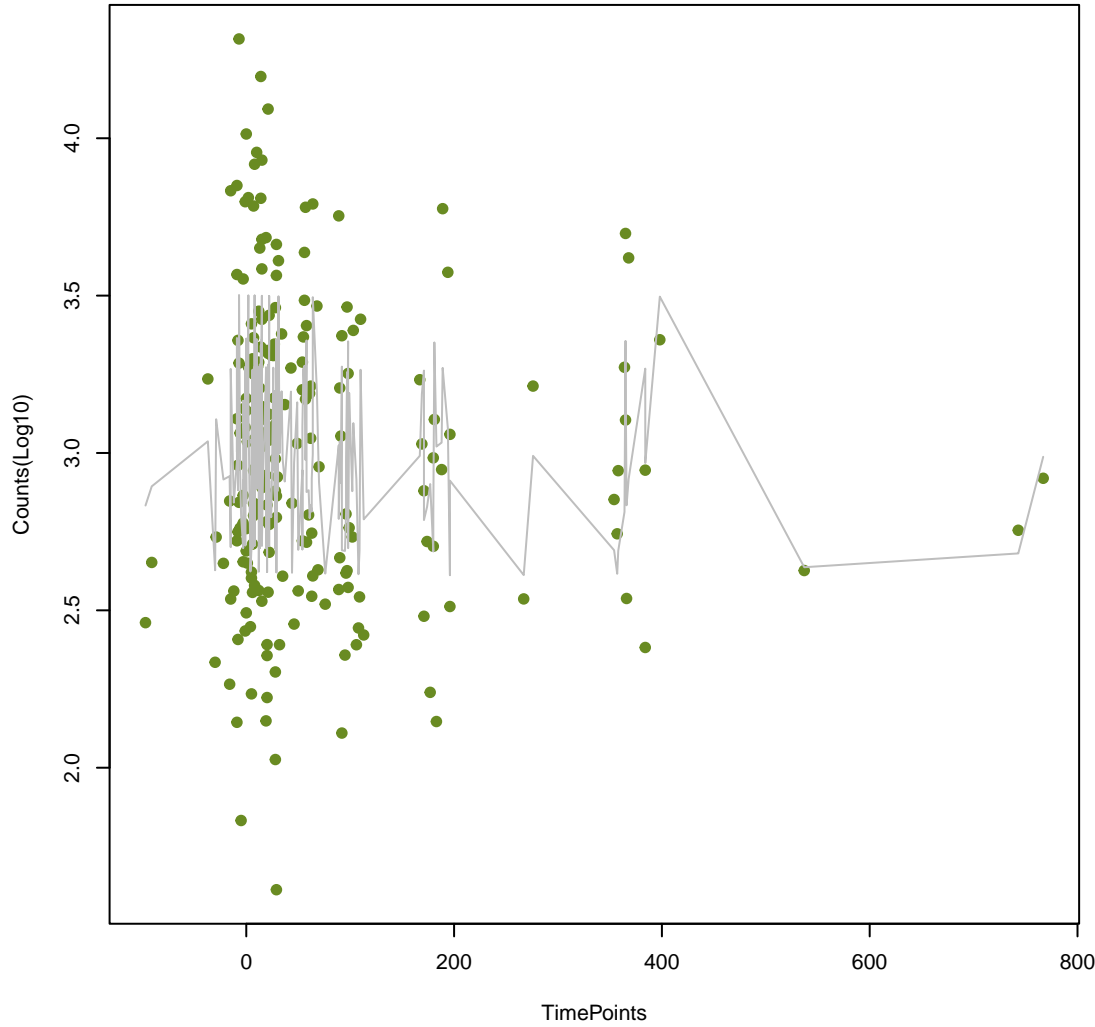
Line vs. Poly F-P=1, adj. F-P=1



**trimethoprim resistant dihydrofolate reductase dfr**

ANOVA P=0.965, adj. ANOVA-P=0.991

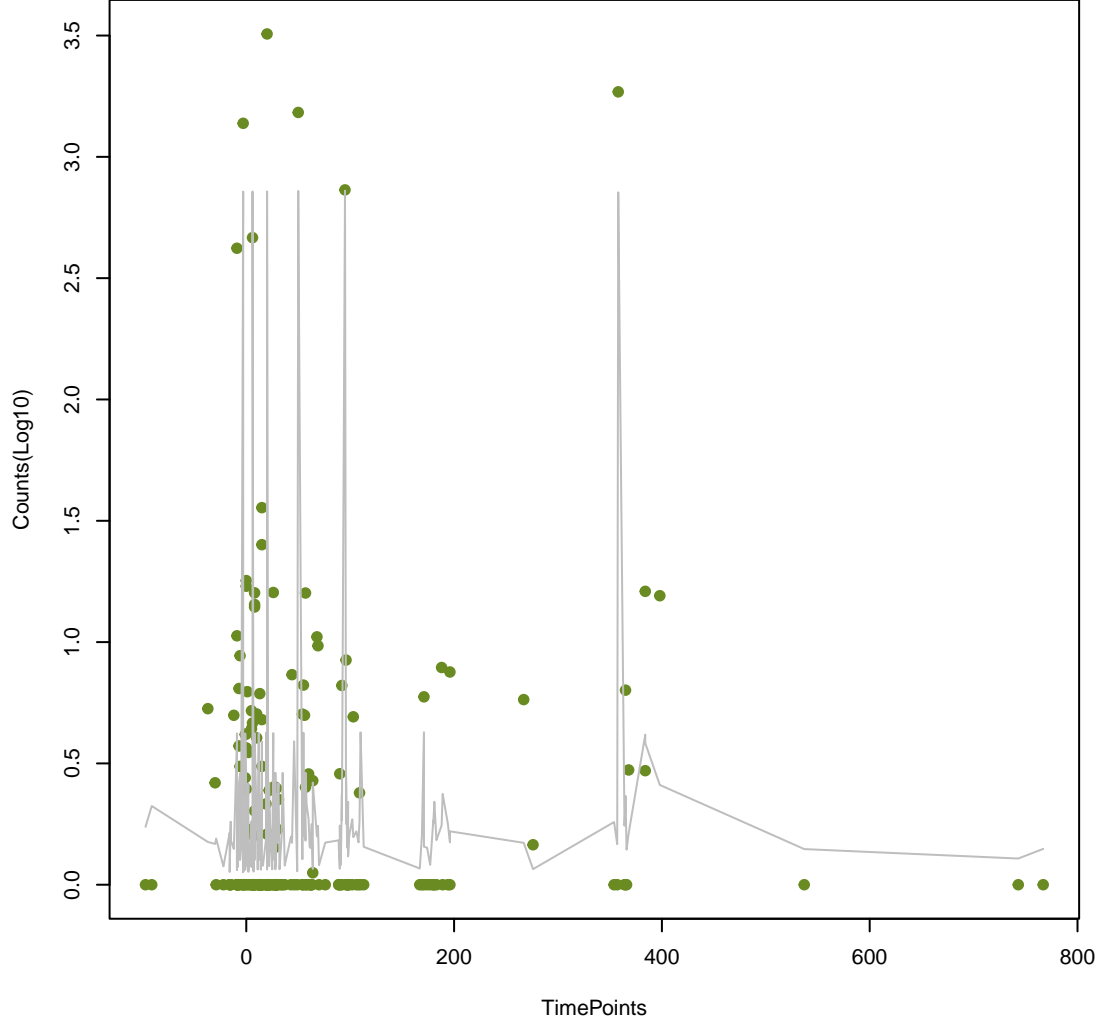
Line vs. Poly F-P=0.898, adj. F-P=1



**macrolide esterase**

ANOVA P=0.972, adj. ANOVA-P=0.991

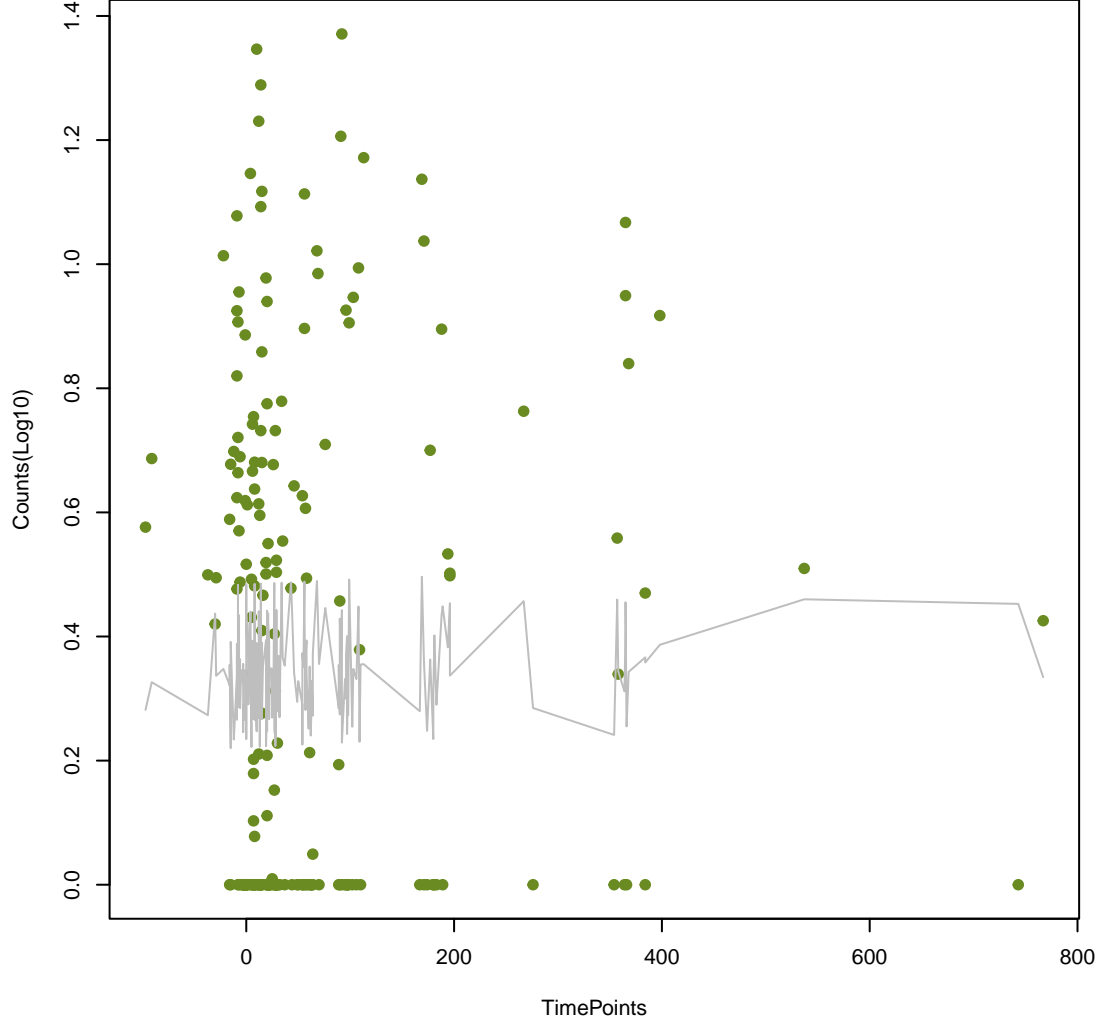
Line vs. Poly F-P=1, adj. F-P=1



**LHK beta-lactamase**

ANOVA P=0.977, adj. ANOVA-P=0.991

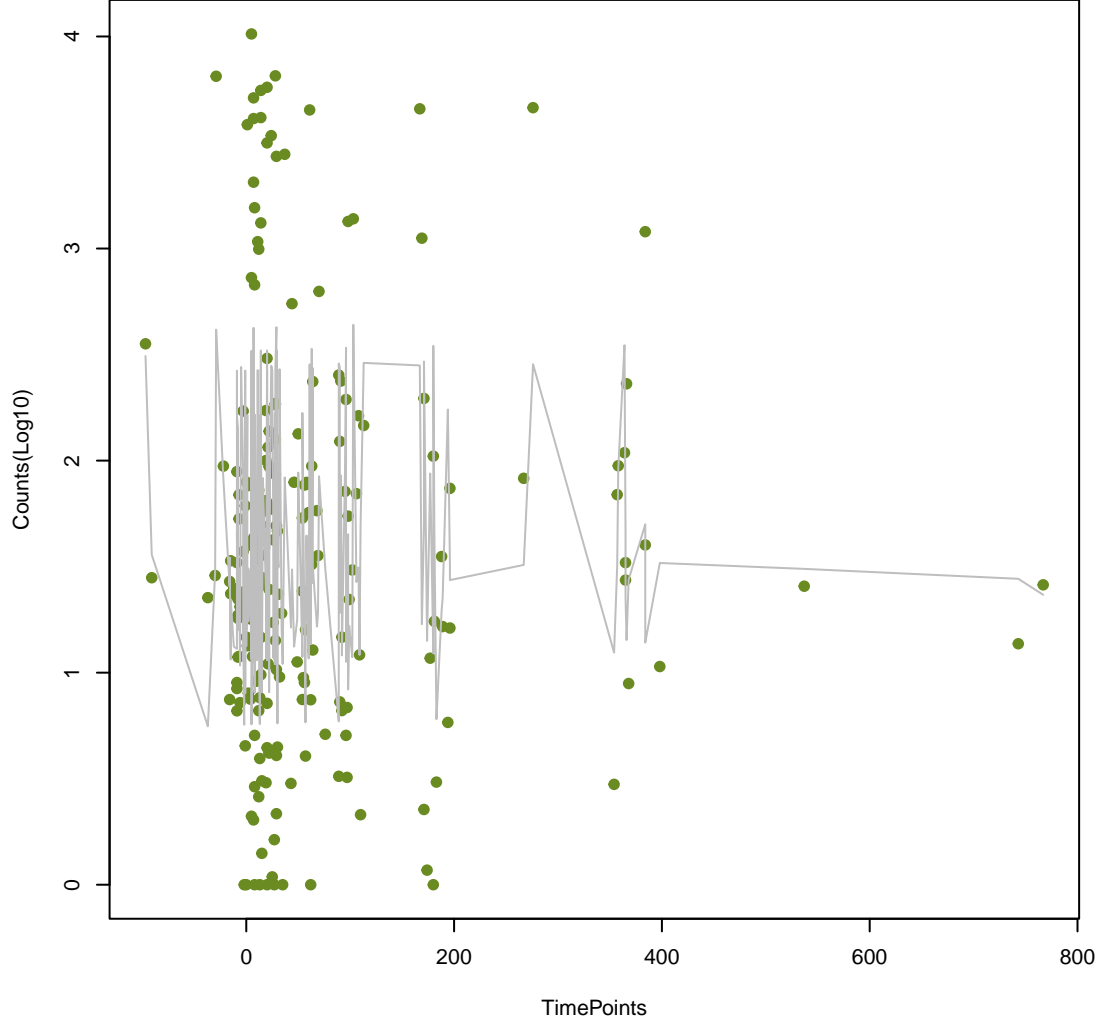
Line vs. Poly F-P=1, adj. F-P=1



**Van ligase;glycopeptide resistance gene cluster**

ANOVA P=0.98, adj. ANOVA-P=0.991

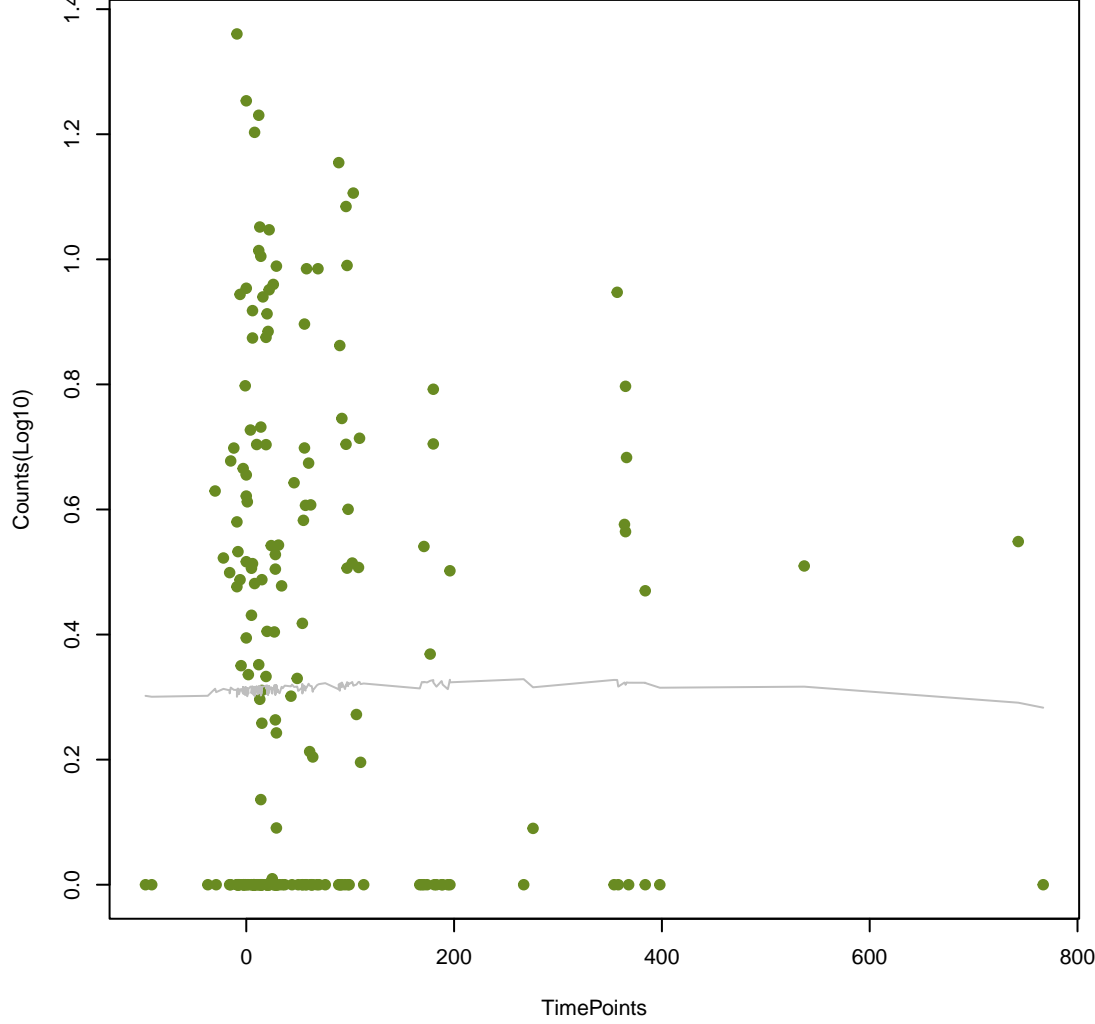
Line vs. Poly F-P=1, adj. F-P=1



**GOB beta-lactamase**

ANOVA P=0.982, adj. ANOVA-P=0.991

Line vs. Poly F-P=1, adj. F-P=1



Isa-type ABC-F protein  
ANOVA P=0.992, adj. ANOVA-P=0.992  
Line vs. Poly F-P=1, adj. F-P=1

