

WinBinVec (Supplementary Figures 2 - Kaplan-Meier and Mutation Accumulation Plots)

Abdollahi et al.

Cancer Type	Five Essential Protein-Protein Interactions	Pages
Breast	CTNNB1-NR5A2, EPAS1-ARNT, SF3B1-SF3B5, PTCH1-SHH, and WDR33-CPSF4	2-4
CRC	BAG6-GET4, IGF2-IGF2R, PIK3CA-PIK3R1, SF3B1-SF3B3, and USP8-UBC	4-6
GYN	DICER1-TARBP2, KRAS-SOS1, RPPR-PDE6D, TNPO1-RAN, and TUBA1B-TUBB	7-9
Male Reproductive Sys.	BCOR-MLLT3, NR1H4-RXRA, RXRA-THR8, TUBB2B-TUBA1B, and WDR33-CPSF1	9-11
Bile Duct	EIF4EBP1-EIF4E2, HLA-DRB1-HLA-DRA, LILRB2-B2M, PRSS3-AMBP, and USP8-RNF41	12-14
Adrenal Gland	EIF4EBP1-EIF4E2, HLA-DRB1-HLA-DRA, MYO5B-RAB11A, PRSS3-APP, and RAF1-HRAS	14-16
Bladder	CDKN2A-CDK6, HLA-DRB1-HLA-DRA, HSPD1-HSPE1, LILRB1-LSP1, and PRSS3-TFPI	17-19
Esophagus	HLA-DRB1-HLA-DRA, LILRB1-B2M, LILRB2-B2M, MTOR-RPS6KB1, and PRSS3-TFPI	19-21
Head and Neck	RHOA-NET1, RAF1-HRAS, HLA-DRB1-HLA-DRA, APBB1-APP, and HRAS-PIK3CG	22-24
Brain	APBB1-APP, NOTCH1-NRARP, NR1H4-RXRA, SF3B1-SF3B5, and TP53-EP300	24-26
Stomach	PABPC1-PAIP2, MDM2-TP53, TP53-GTF2H1, CDC6-PPP2R1A, and USP8-RNF41	27-29
Pleura	KIR3DL1-B2M, PRSS3-AMBP, HLA-DRB1-HLA-DRA, EIF4EBP1-EIF4E2, and BCOR-PCGF1	29-31
Pancreatic	KIR3DL1-B2M, PRSS3-AMBP, BAG6-GET4, IPO13-EIF1AX, and PRPF8-EFTUD2	32-34
Liver	ALB-FCGRT, EIF4EBP1-EIF4E2, HLA-DRB1-HLA-DRA, MTOR-RPTOR, and TP53-HMGB1	34-36
Bone Marrow	HADHB-HADHA, PRPF8-EFTUD2, SERPINE1-PLAT, NOTCH1-RBPJ, and HSPD1-HSPE1	37-39
Melanoma	MYO7A-USH1C, GNG2-CALCR, SF3B1-SF3B5, TRIAP1-PRELID1, and APBB1-APP	39-41
Kidney	LILRB2-B2M, GNAS-GNB1, KIR3DL1-B2M, RAC1-PLCB2, and UBE2N-UBC	42-44
Lung	CDC6-PPP2R1A, CCNT1-CDK9, NCBP1-NCBP2, FLT1-VEGFA, and BAG6-GET4	44-46
Thyroid	LILRB2-B2M, MAP2K1-BRAF, MTOR-MLST8, HRAS-RASGRP4, and RET-GFRA2	47-49
Thymus	HRAS-RASA1, PRPF8-EFTUD2, FGFR1-FGF9, MST1-MST1R, and DNMT1-UBB	49-51

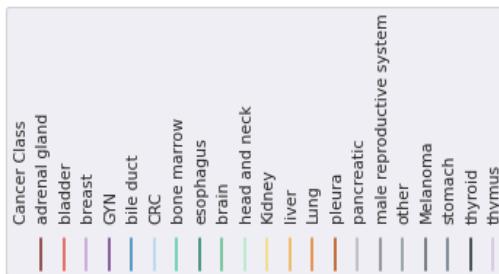
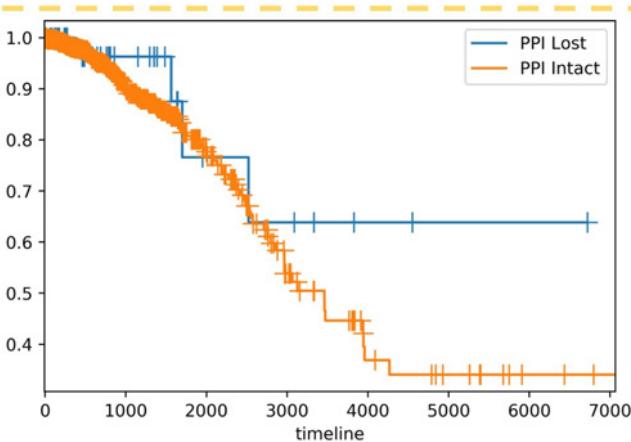
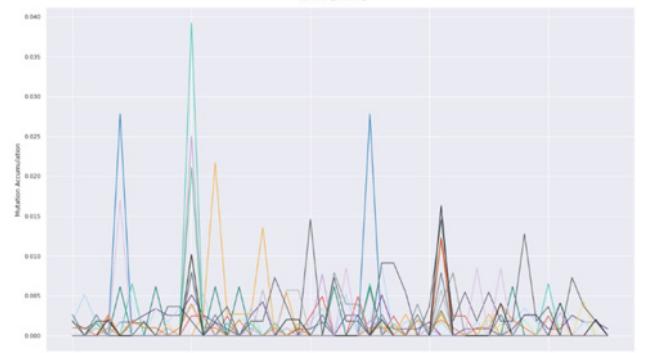
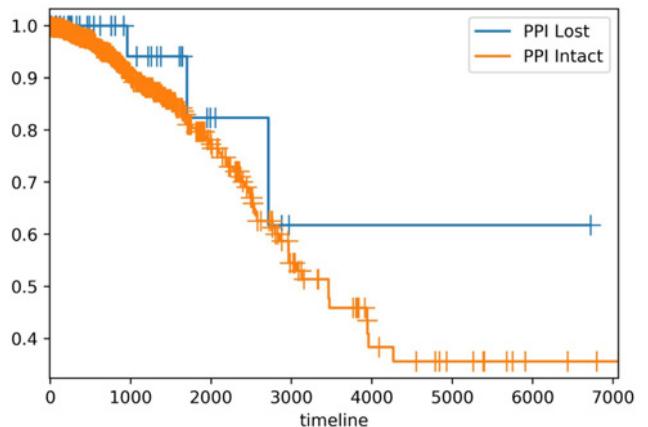
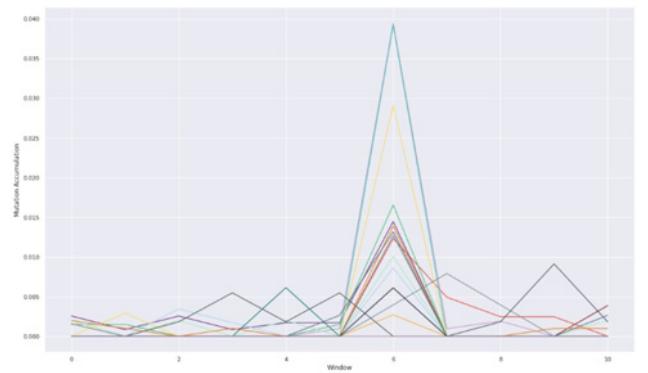
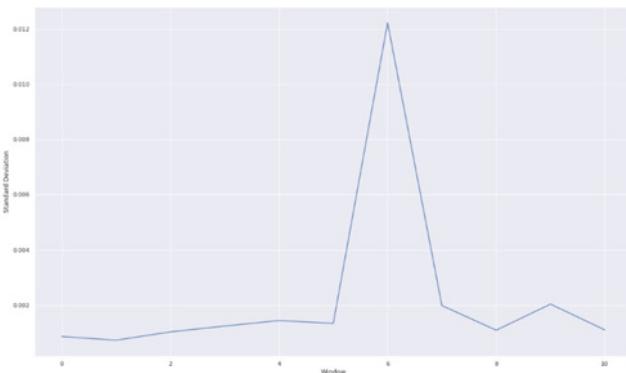


Figure 1: The legend of the mutation accumulation plots.

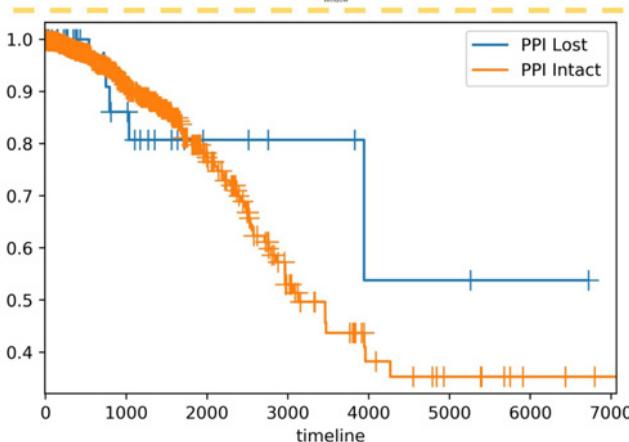
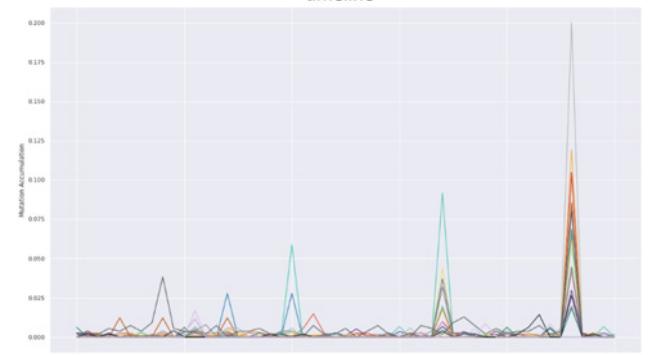
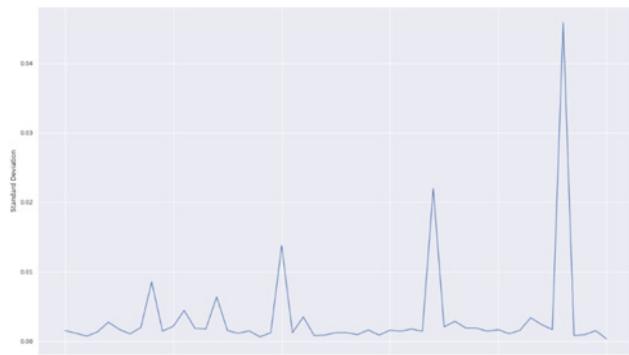
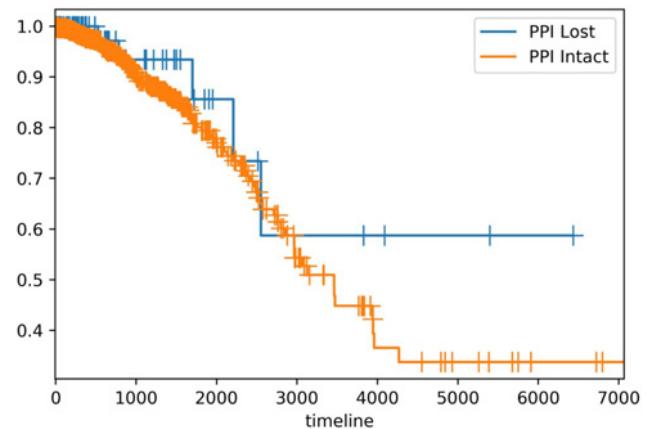
BREAST
 NM_001098210 and NM_205860
 CTNNB1 - NR5A2
 PDB: 3TX7 (Chains A and B)



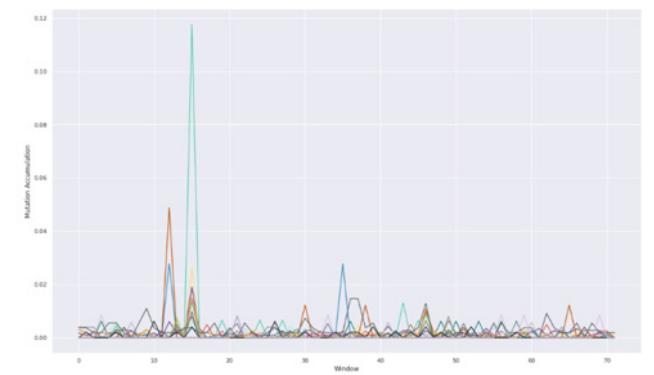
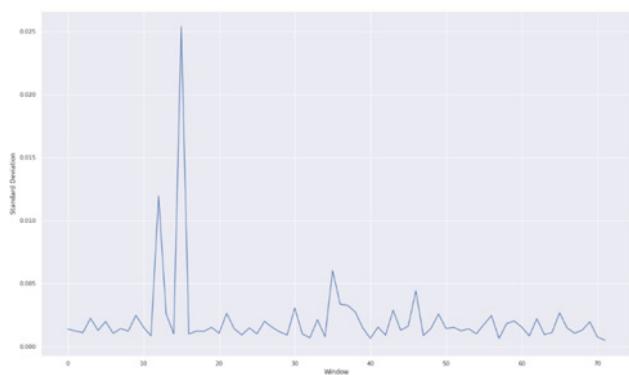
BREAST
 NM_001430 and NM_001668
 EPAS1 - ARNT
 PDB: 6CZW (Chains A and B)



BREAST
 NM_012433 and NM_031287
 SF3B1 - SF3B5
 PDB: 5IFE (Chains C and B)

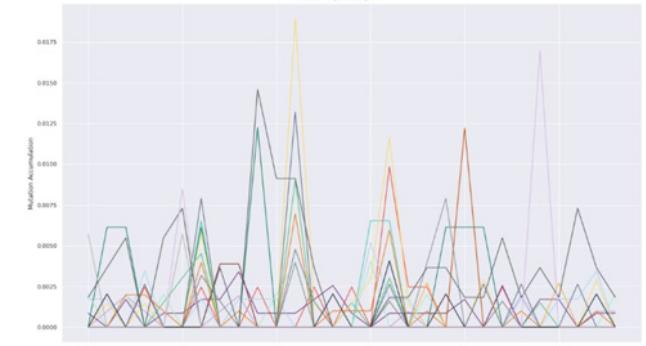
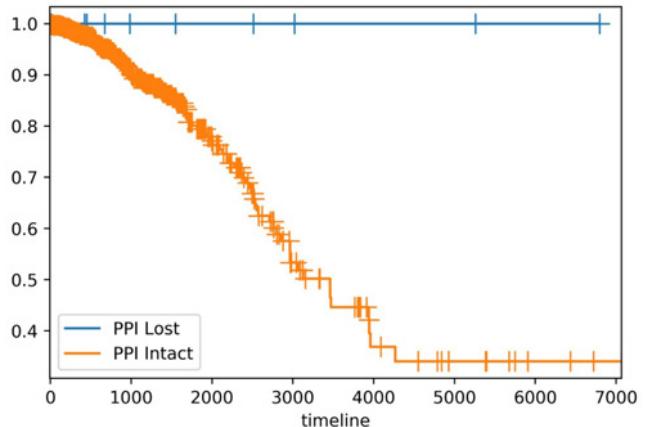
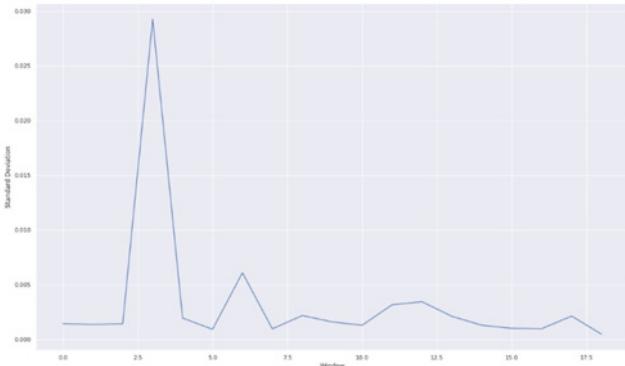
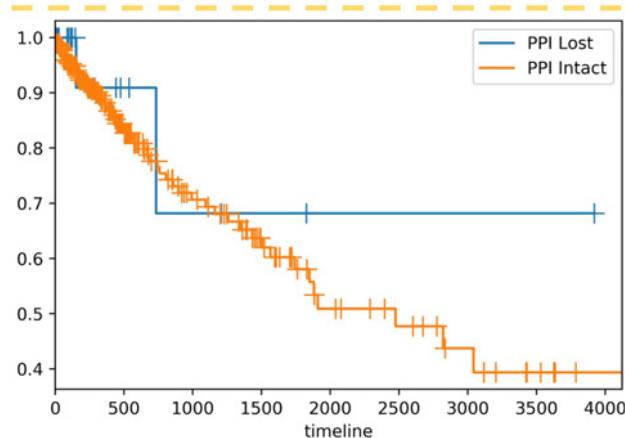


BREAST
 NM_000264 and NM_000193
 PTCH1 - SHH
 PDB: 6DMY (Chains A and B)



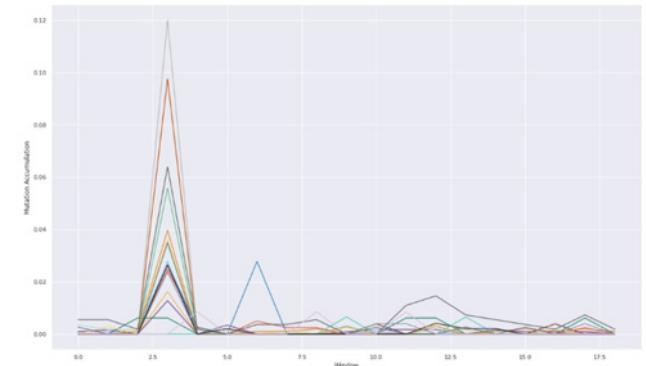
BREAST

NM_018383 and NM_006693
WDR33 - CPSF4
PDB: 6FBS (Chains B and C)

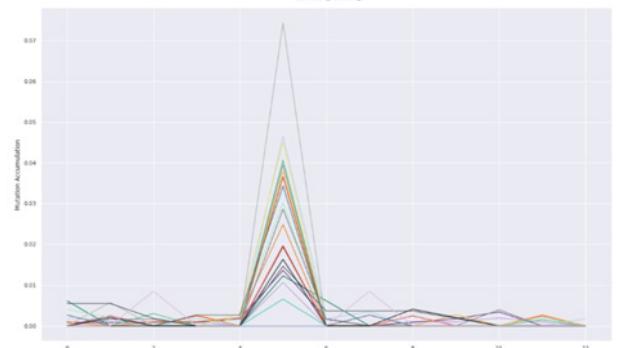
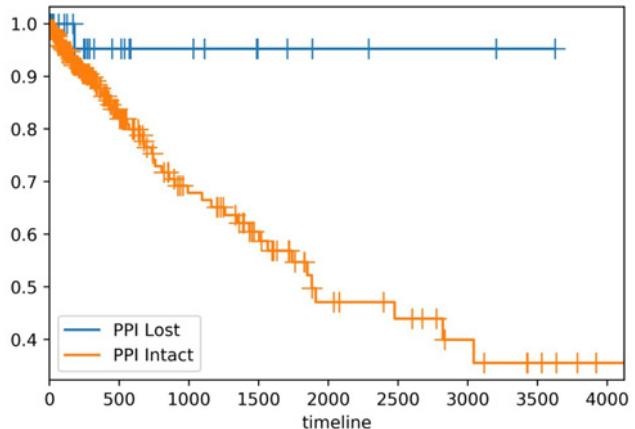
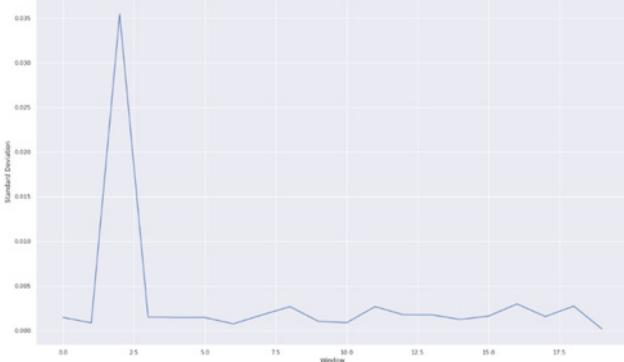
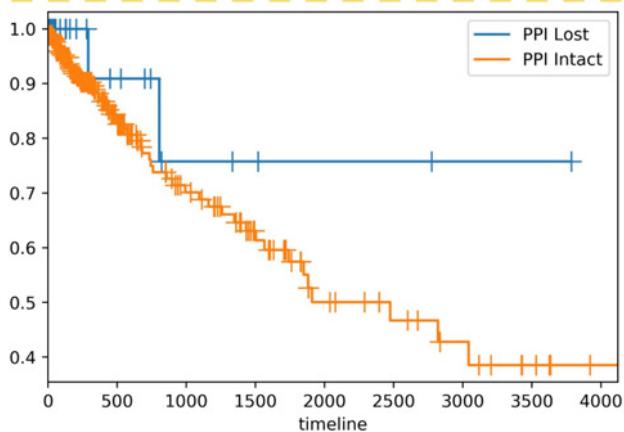
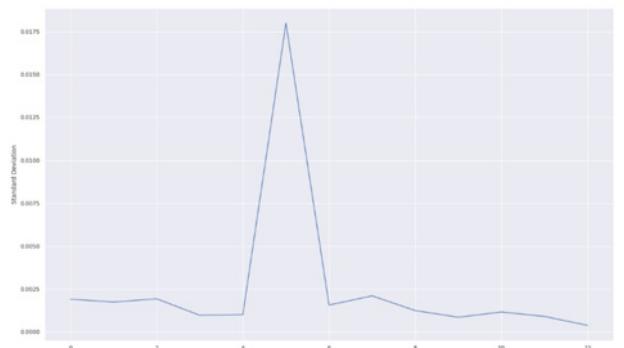


CRC

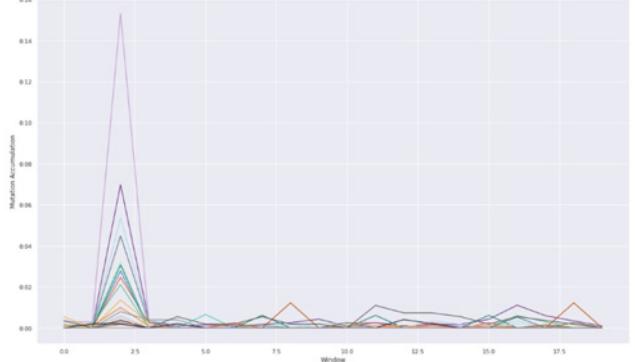
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BAG6 - GET4
PDB: 6AU8 (Chains C and A)



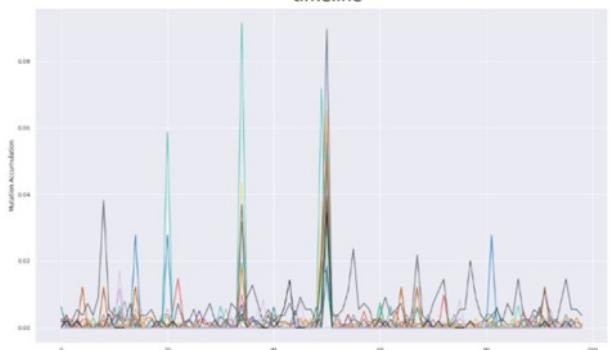
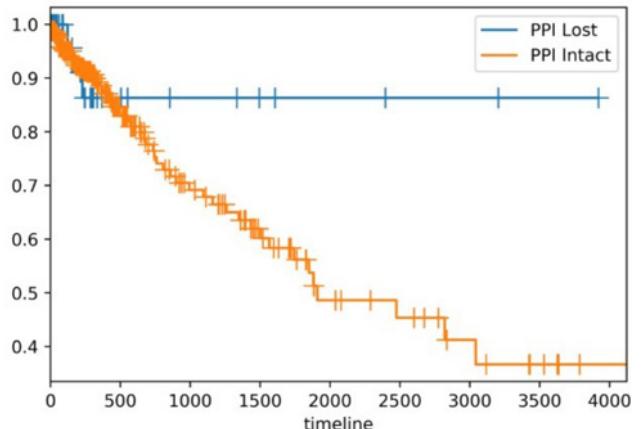
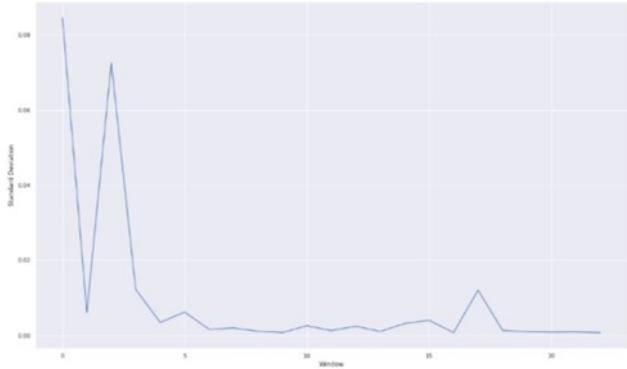
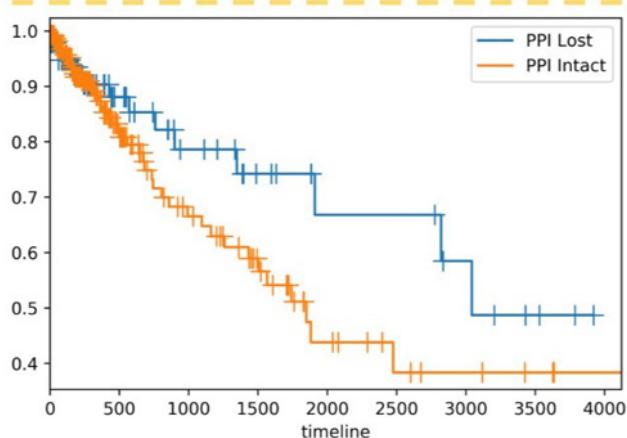
CRC
 32NM_000612 and NM_000876
 IGF2 - IGF2R
 PDB: 2L29 (Chains B and A)



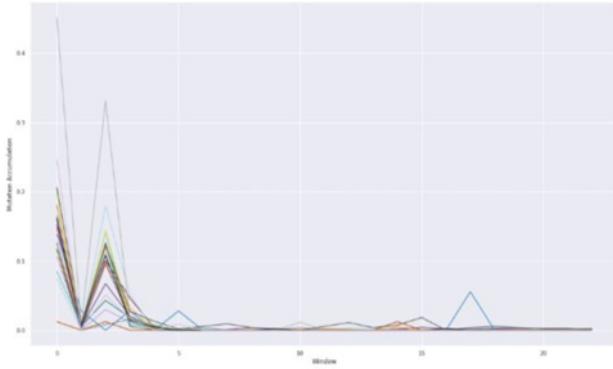
CRC
 33NM_006218 and NM_181504
 PIK3CA - PIK3R1
 PDB: 6NCT (Chains A and B)



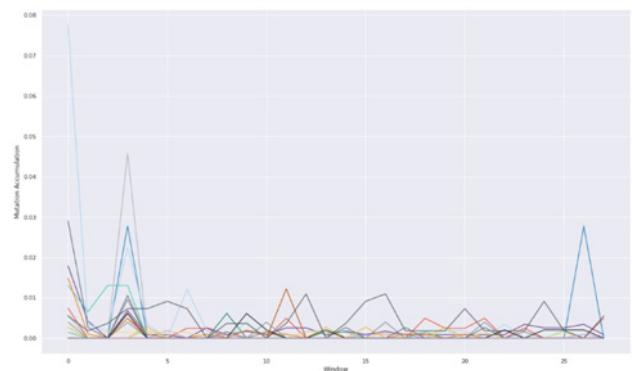
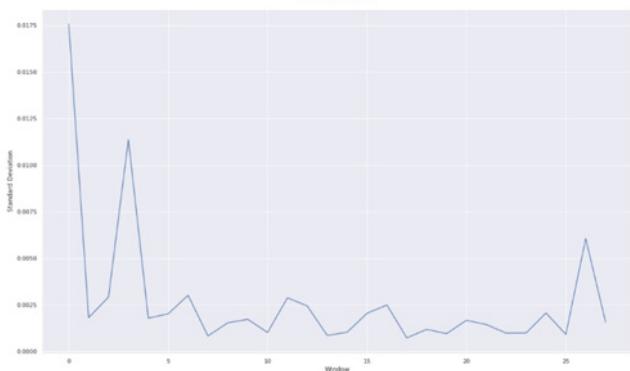
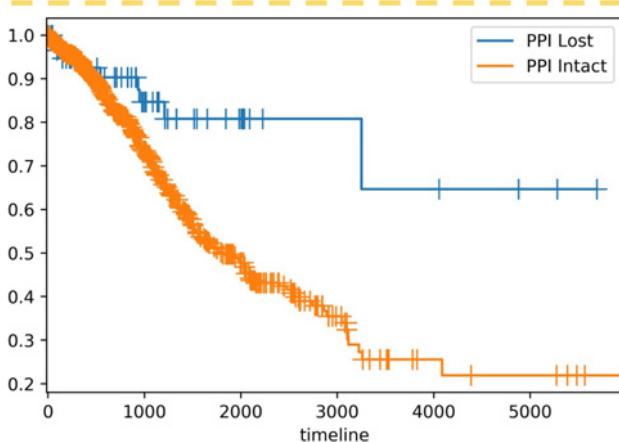
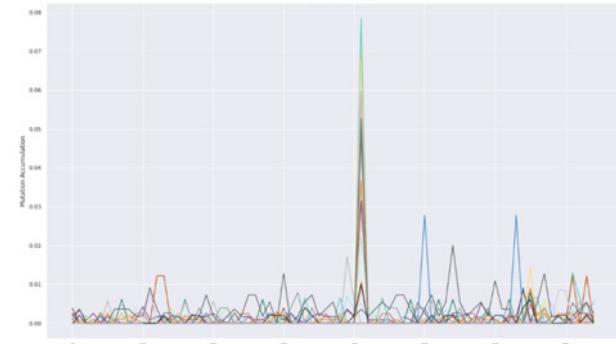
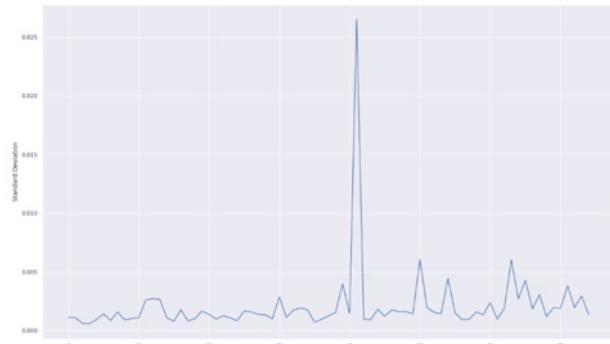
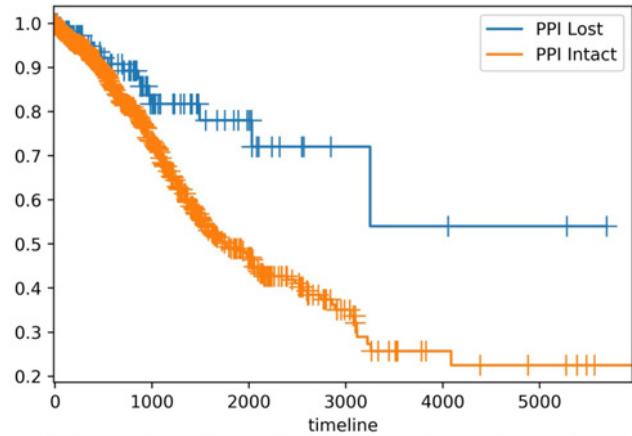
CRC
 34NM_012433 and NM_012426
 SF3B1 - SF3B3
 PDB: 5IFE (Chains C and A)



CRC
 35NM_005154 and NM_021009
 USP8 - UBC
 PDB: 3N3K (Chains A and B)

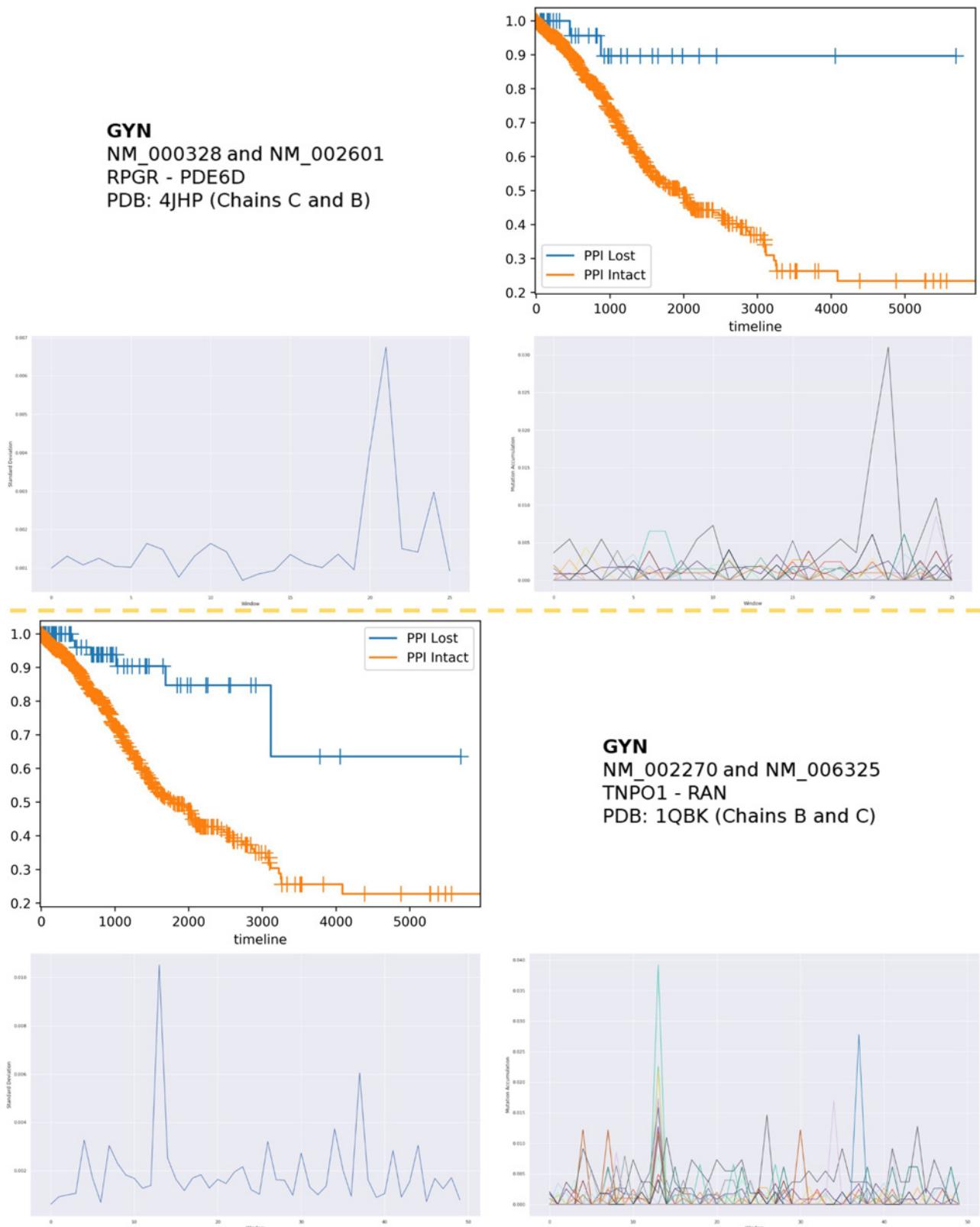


GYN
 NM_001271282 and TARBP2
 DICER1 - TARBP2
 PDB: 5ZAL (Chains A and B)



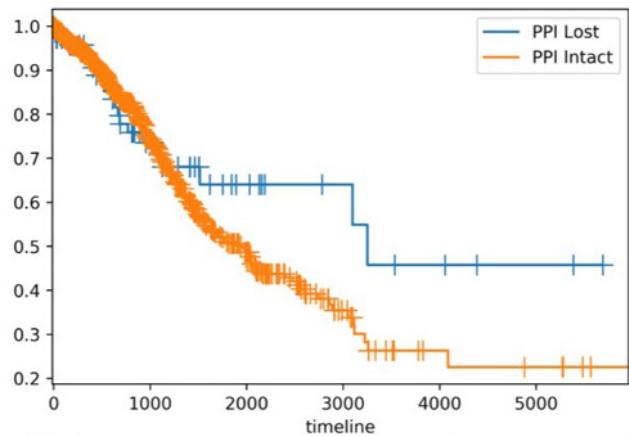
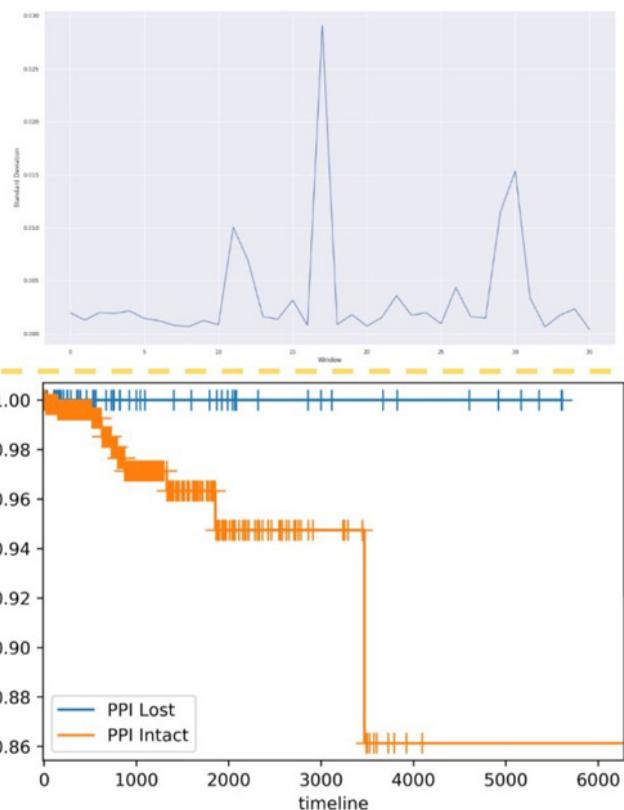
GYN
 NM_033360 and NM_005633
 KRAS - SOS1
 PDB: 6EPP (Chains R and S)

GYN
NM_000328 and NM_002601
RPGR - PDE6D
PDB: 4JHP (Chains C and B)

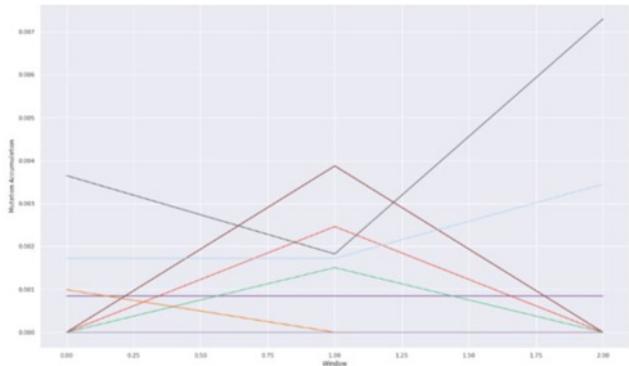
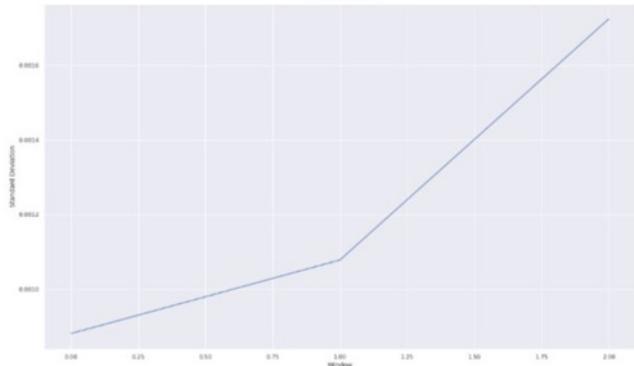


GYN
NM_002270 and NM_006325
TNPO1 - RAN
PDB: 1QBK (Chains B and C)

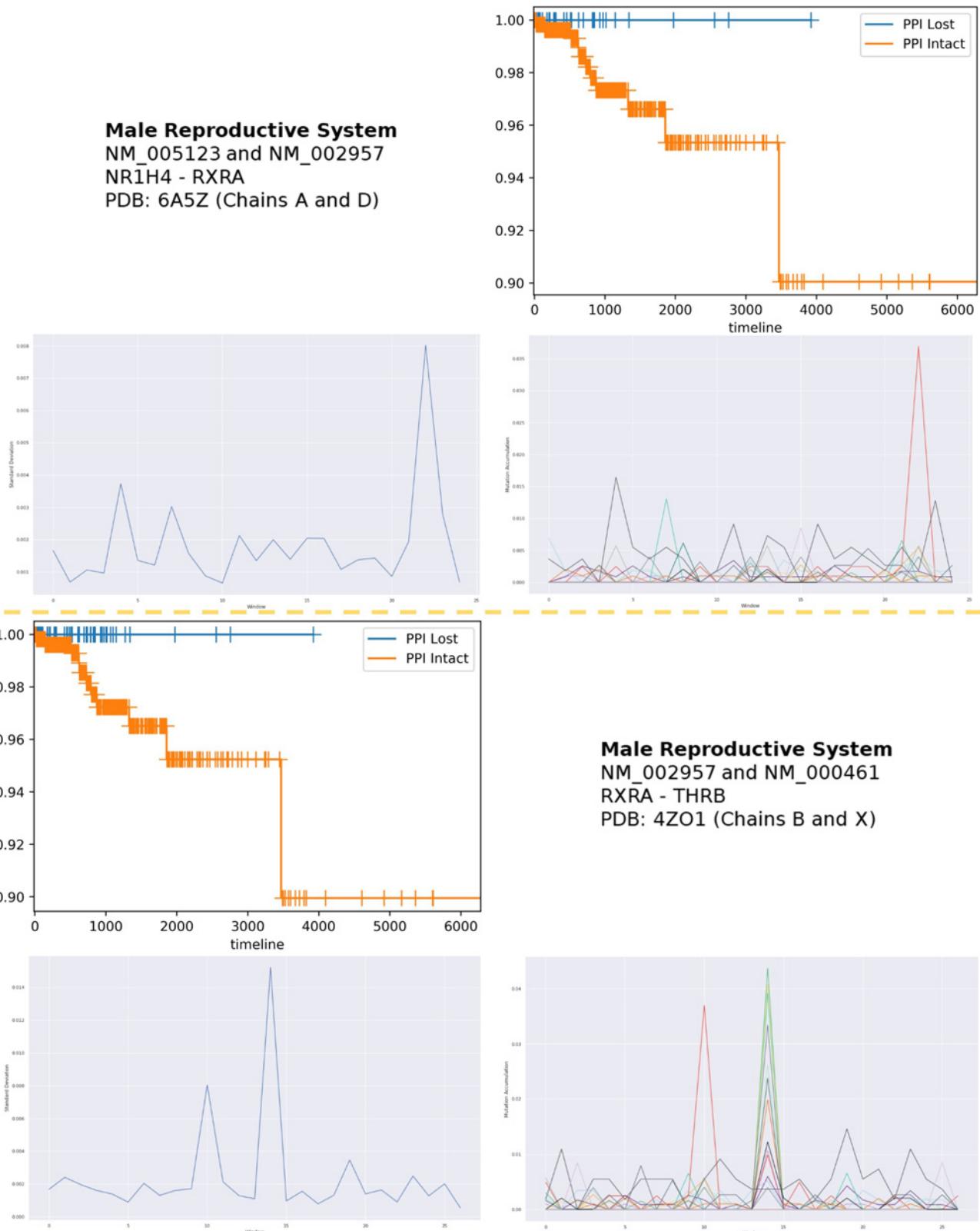
GYN
NM_006082 and NM_178014
TUBA1B-TUBB
PDB: 6I2I (Chains A and B)



Male Reproductive System
NM_017745 and NM_004529
BCOR - MLLT3
PDB: 6B7G (Chains B and A)

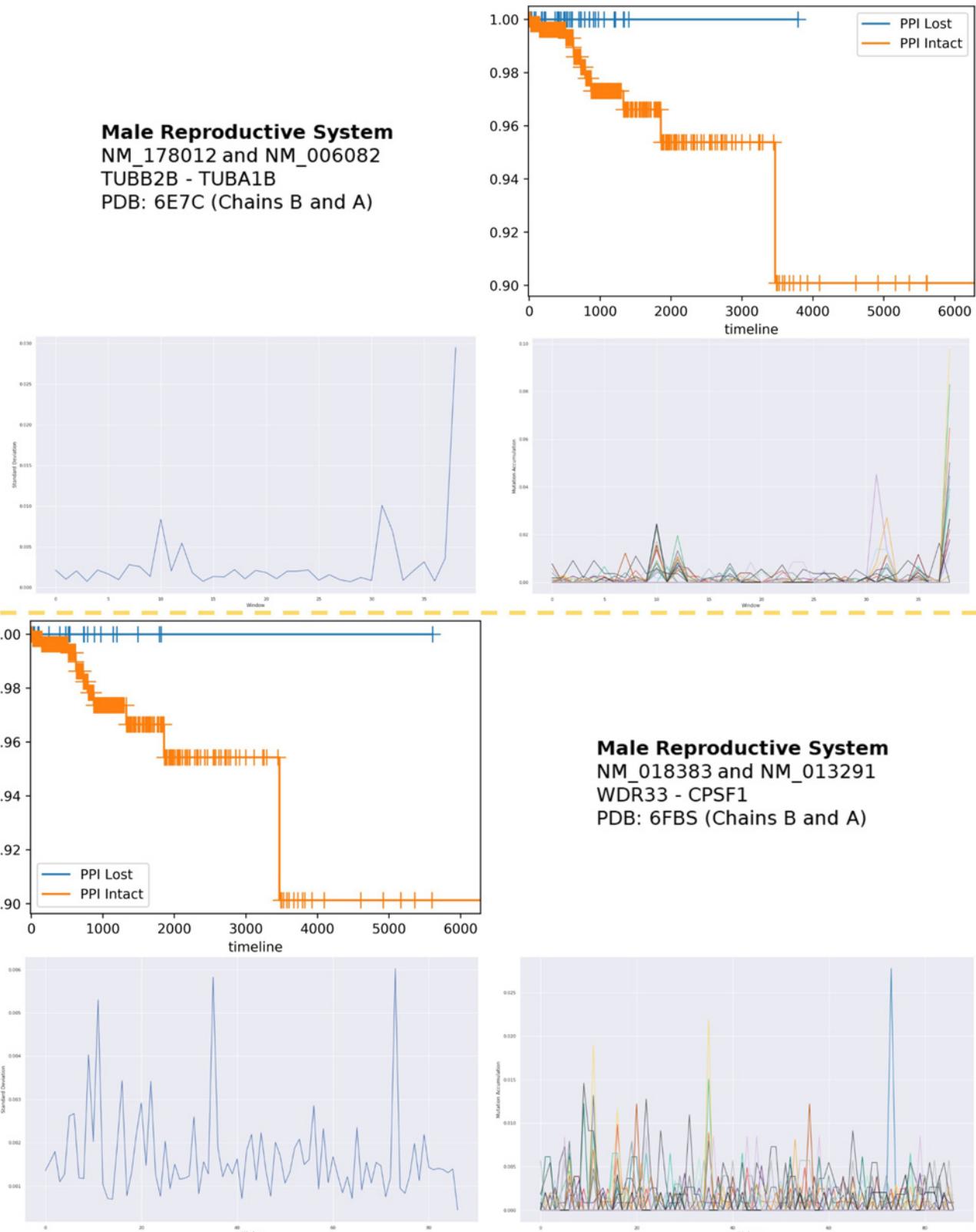


Male Reproductive System
 NM_005123 and NM_002957
 NR1H4 - RXRA
 PDB: 6A5Z (Chains A and D)



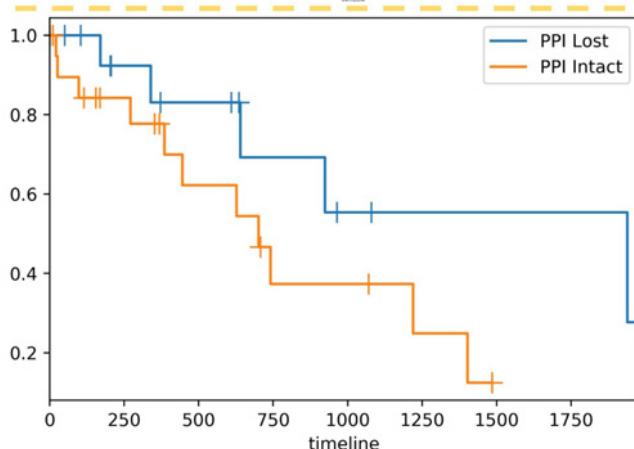
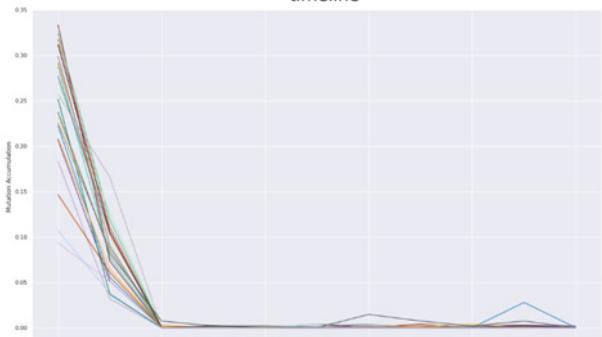
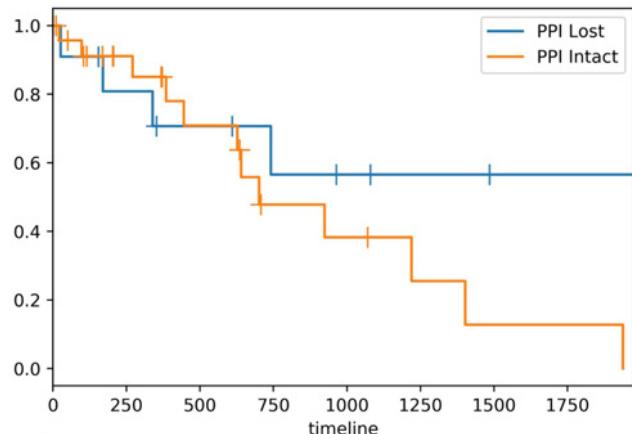
Male Reproductive System
 NM_002957 and NM_000461
 RXRA - THRB
 PDB: 4ZO1 (Chains B and X)

Male Reproductive System
 NM_178012 and NM_006082
 TUBB2B - TUBA1B
 PDB: 6E7C (Chains B and A)



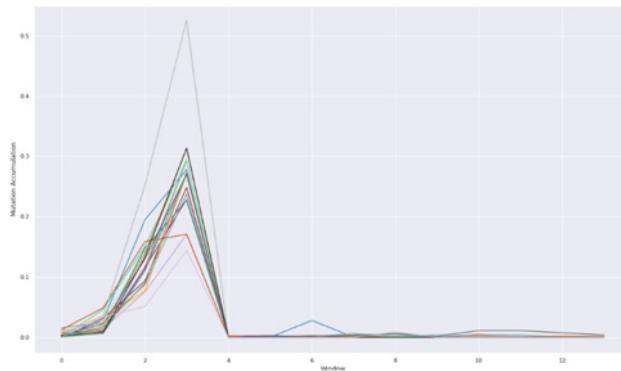
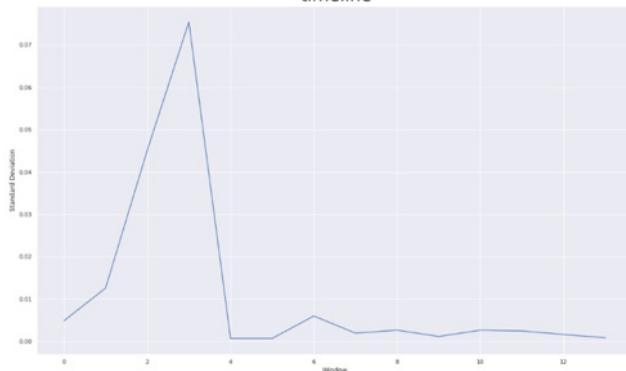
Bile Duct

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EIF4EBP1 - EIF4E2
PDB: 5NVN (Chains B and A)

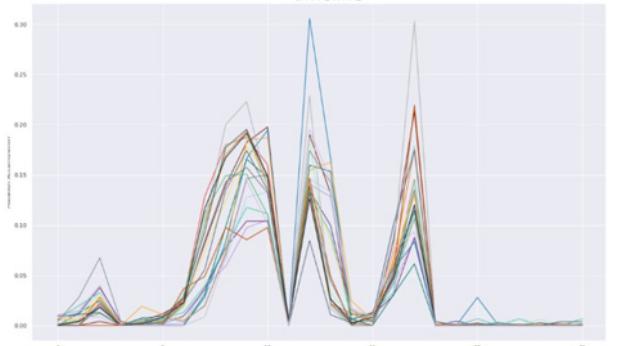
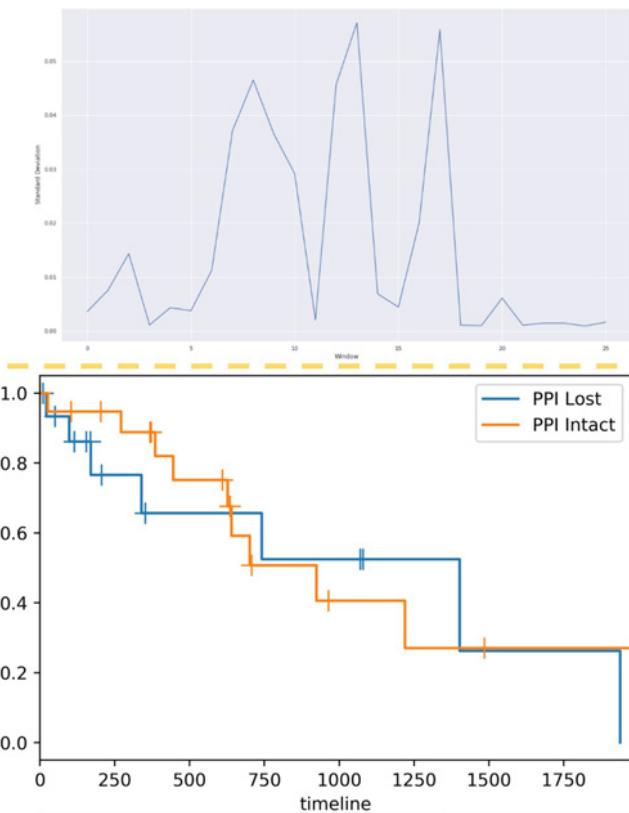
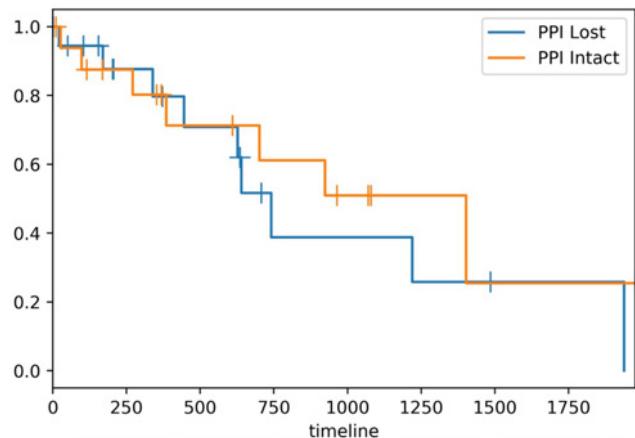


Bile Duct

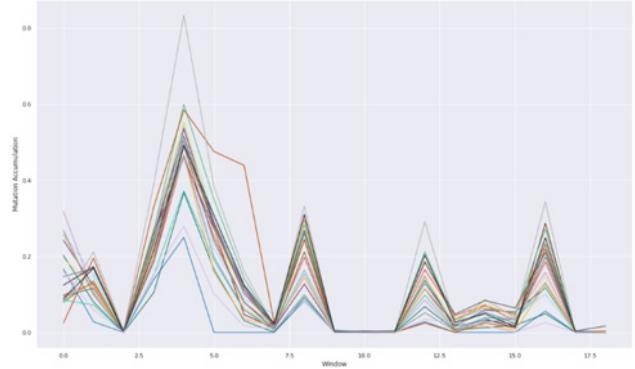
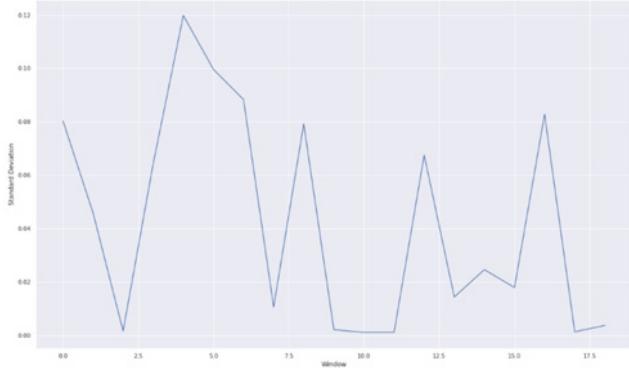
NM_002124 and NM_019111
HLA-DRB1 - HLA-DRA
PDB: 6HBY (Chains B and A)



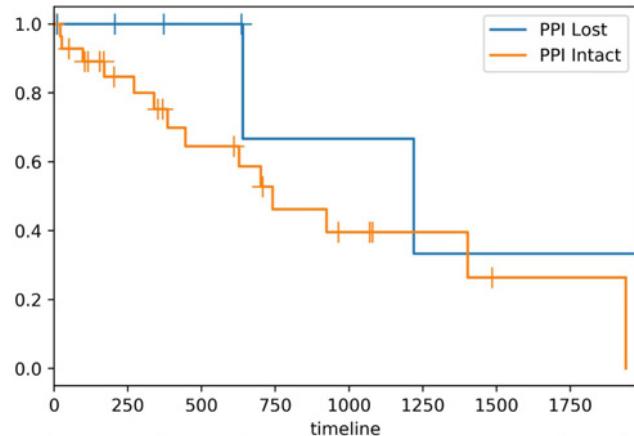
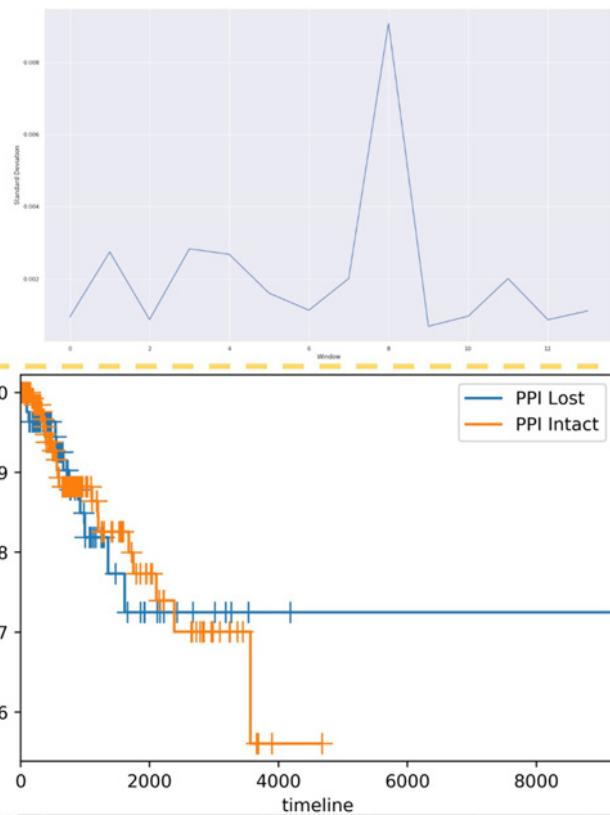
Bile Duct
LILRB2 and NM_004048
LILRB2 - B2M
PDB: 2DYP (Chains D and B)



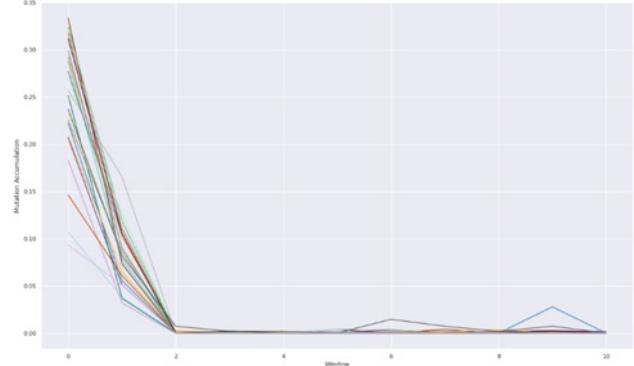
Bile Duct
NM_002771 and NM_001633
PRSS3 - AMBP
PDB: 4U30 (Chains A and X)



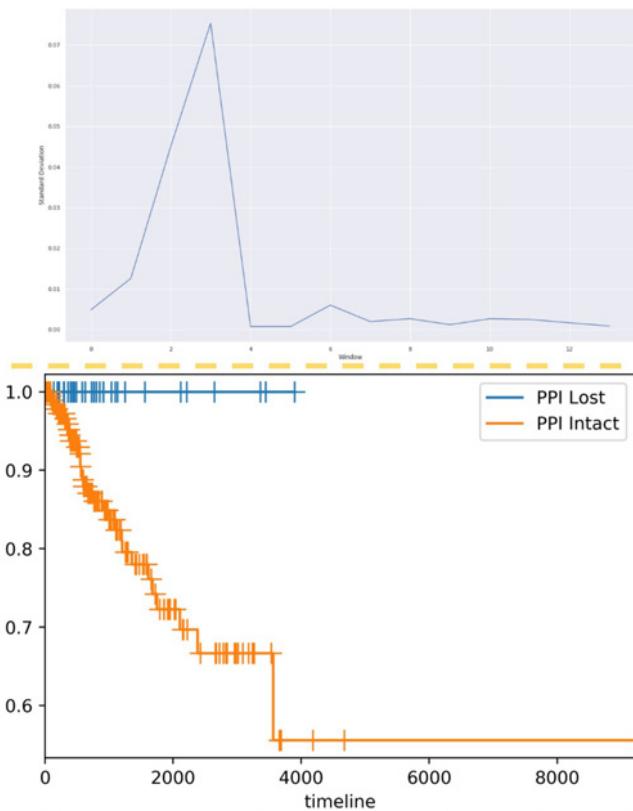
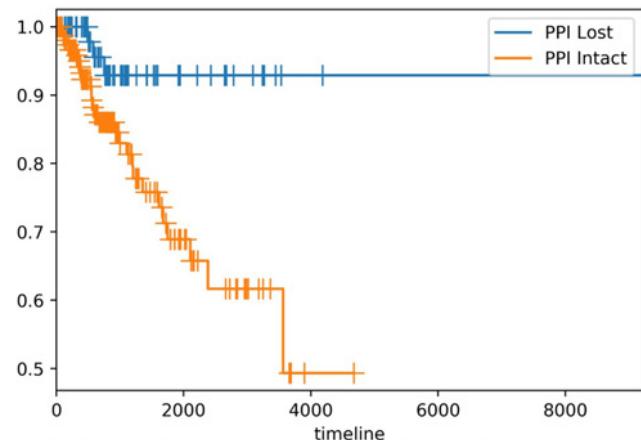
Bile Duct
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 USP8 - RNF41
 PDB: 2GWF (Chains A and B)



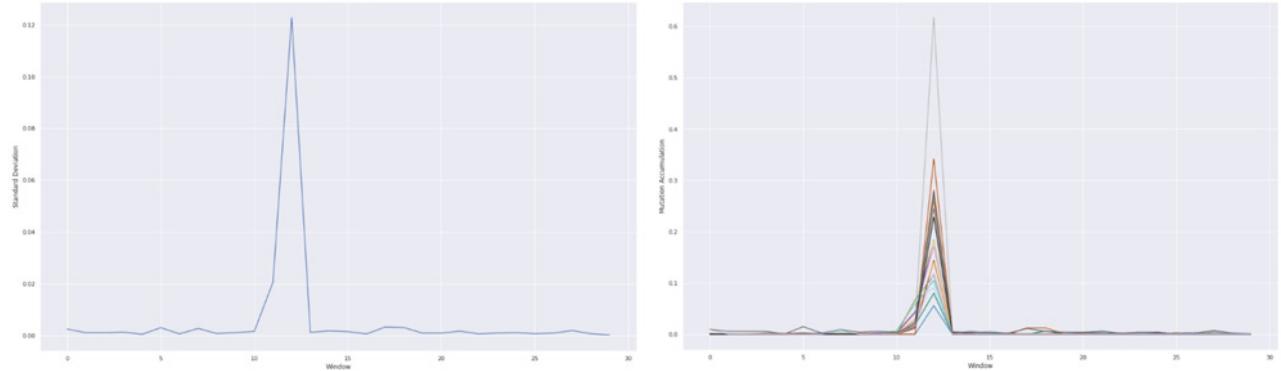
Adrenal Gland
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 EIF4EBP1 - EIF4E2
 PDB: 5NVN (Chains B and A)



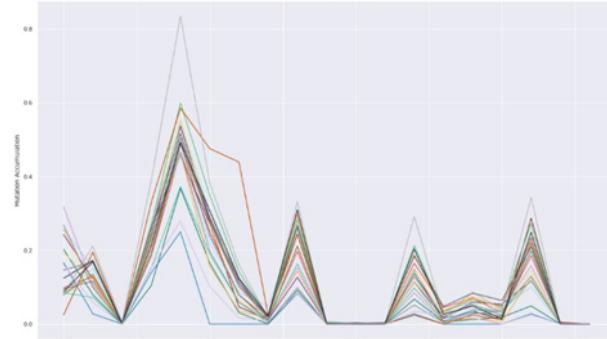
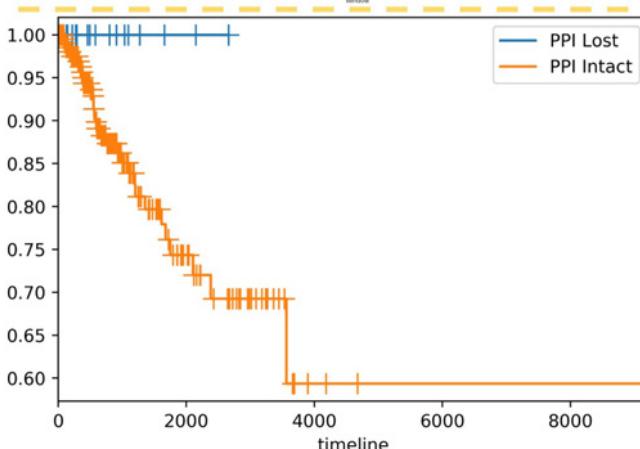
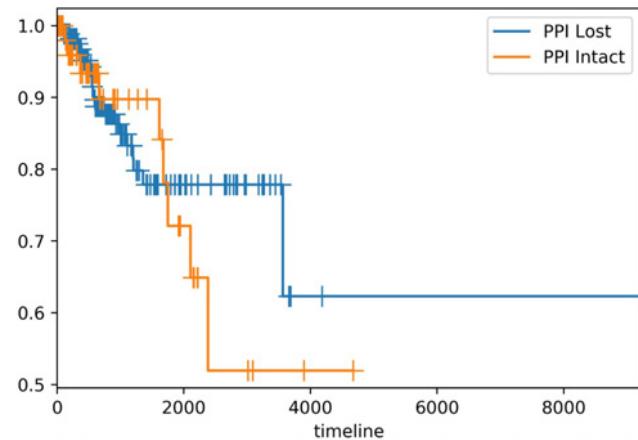
Adrenal Gland
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 HLA-DRB1 - HLA-DRA
 PDB: 6HBY (Chains B and A)



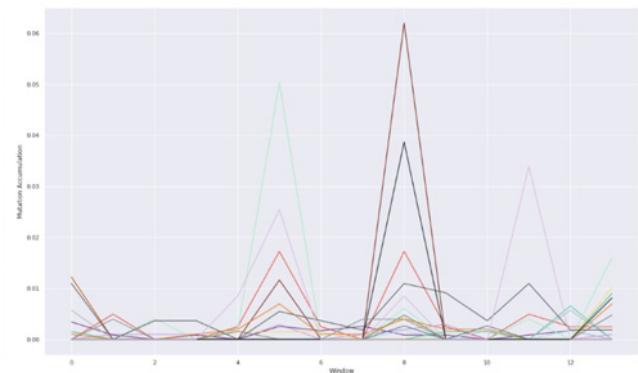
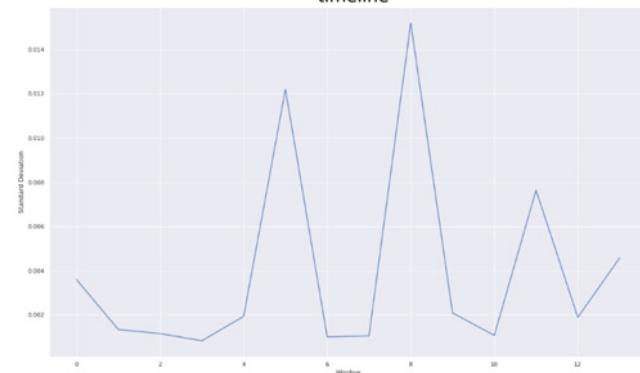
Adrenal Gland
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 MYO5B - RAB11A
 PDB: 4LWZ (Chains B and A)



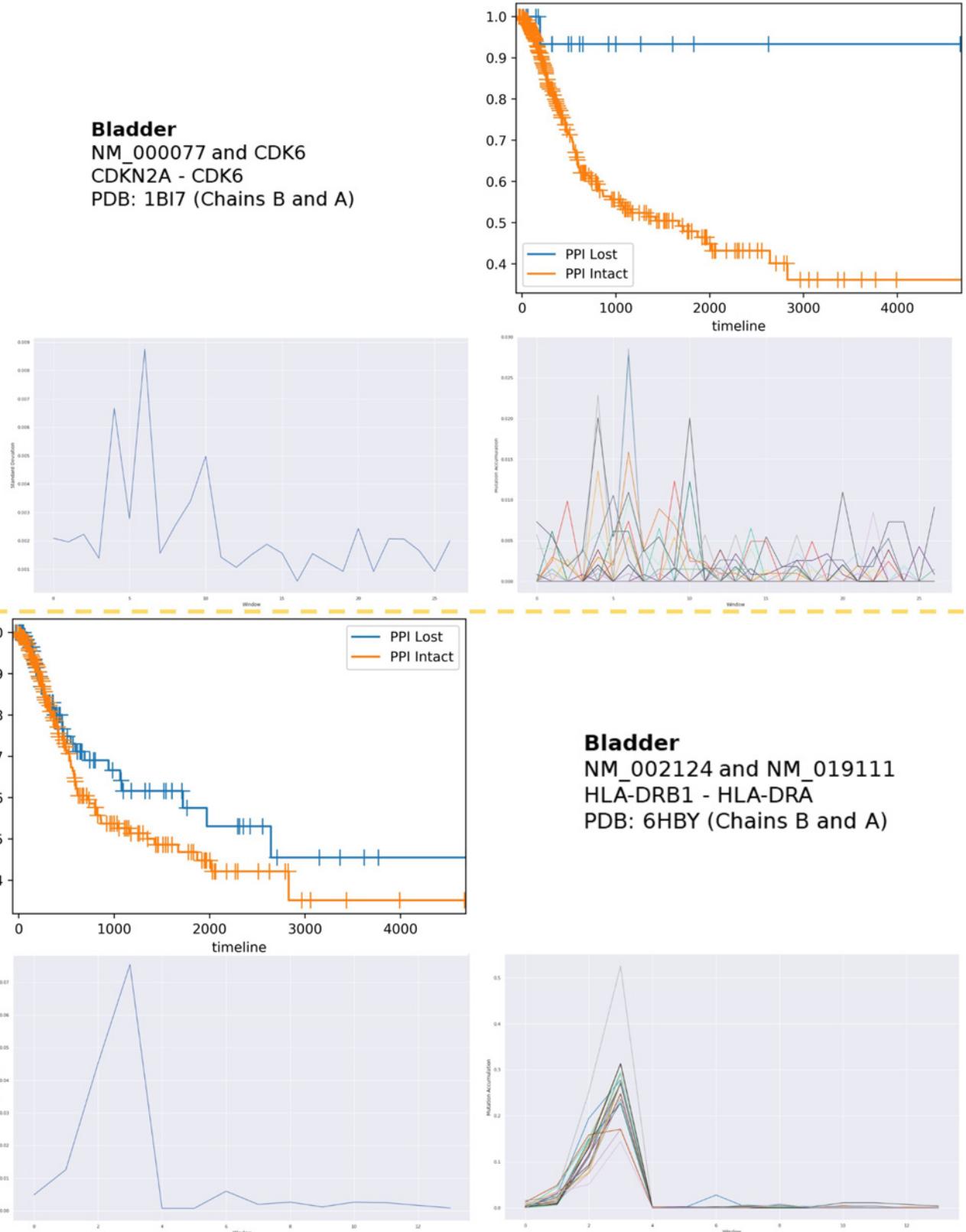
Adrenal Gland
 NM_002771 and NM_000484
 PRSS3 - APP
 PDB: 6HAR (Chains A and E)



Adrenal Gland
 NM_002880 and NM_176795
 RAF1 - HRAS
 PDB: 4G0N (Chains B and A)

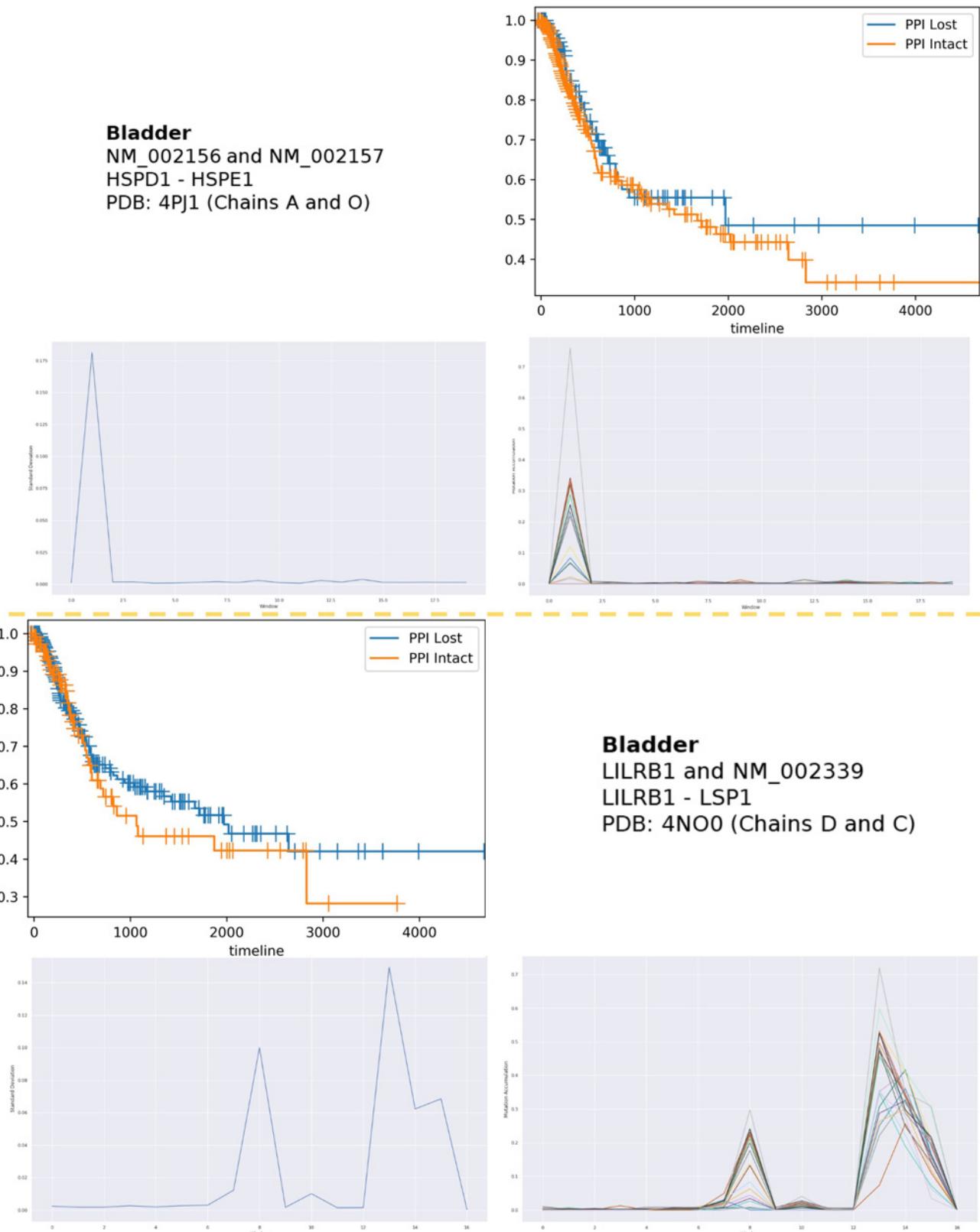


Bladder
 NM_000077 and CDK6
 CDKN2A - CDK6
 PDB: 1BI7 (Chains B and A)



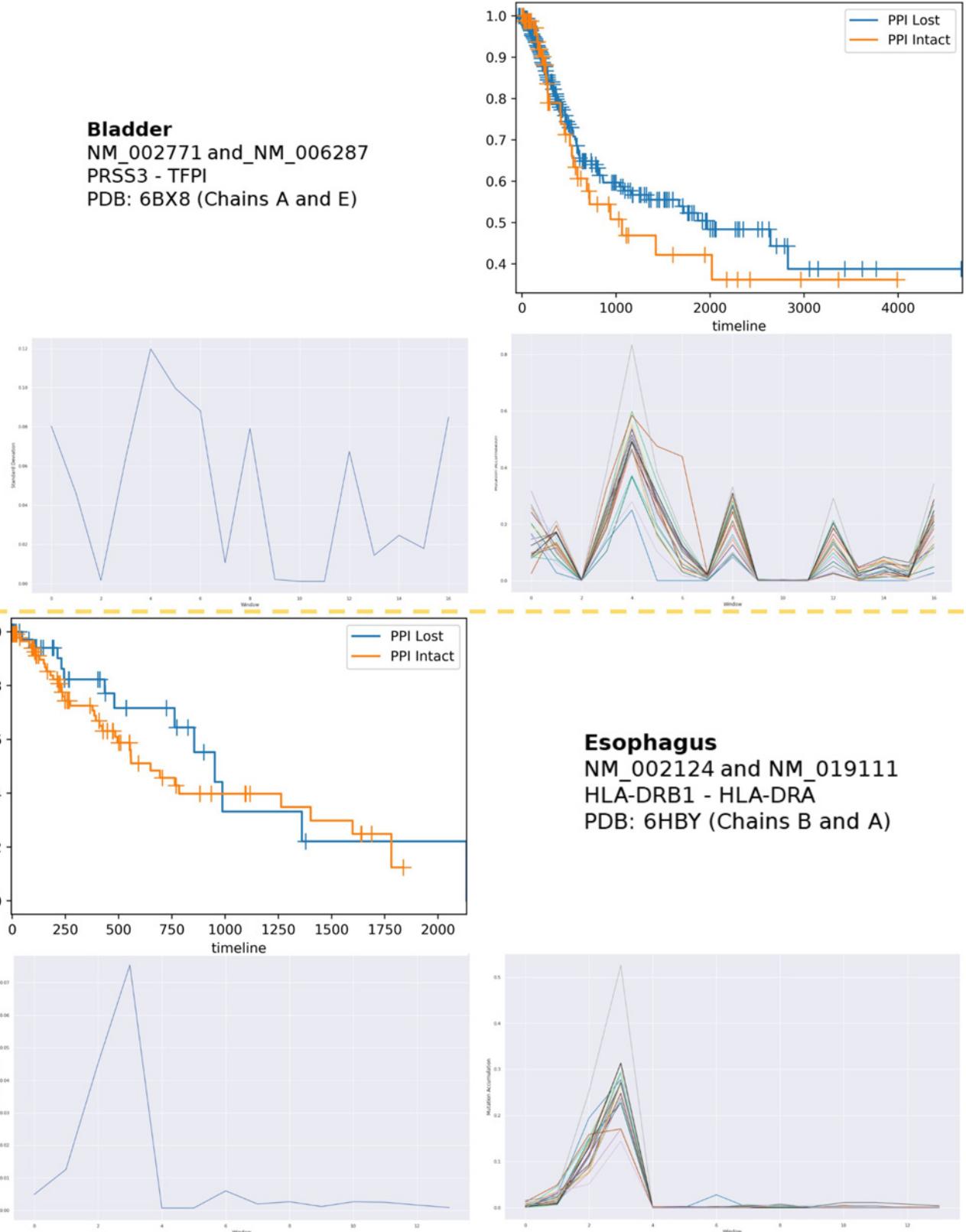
Bladder
 NM_002124 and NM_019111
 HLA-DRB1 - HLA-DRA
 PDB: 6HBY (Chains B and A)

Bladder
NM_002156 and NM_002157
HSPD1 - HSPE1
PDB: 4PJ1 (Chains A and O)



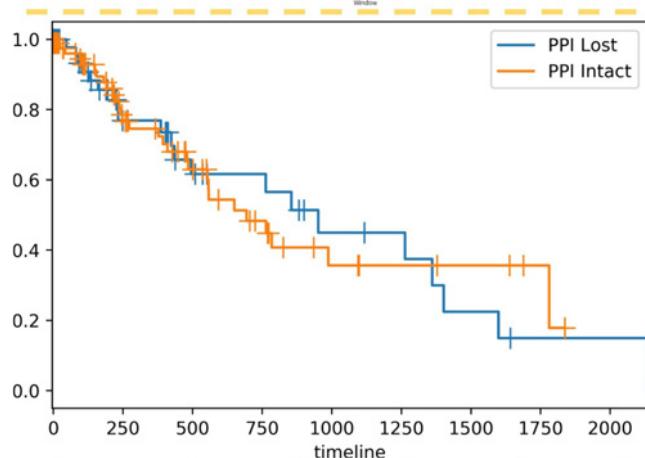
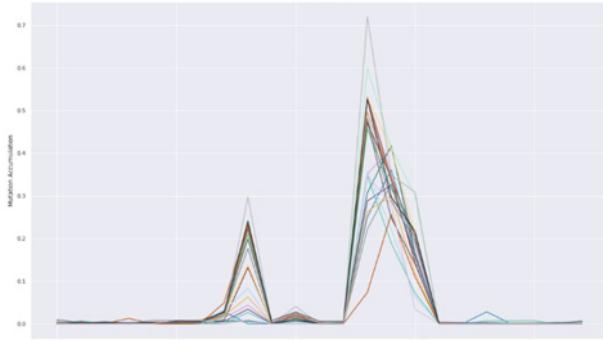
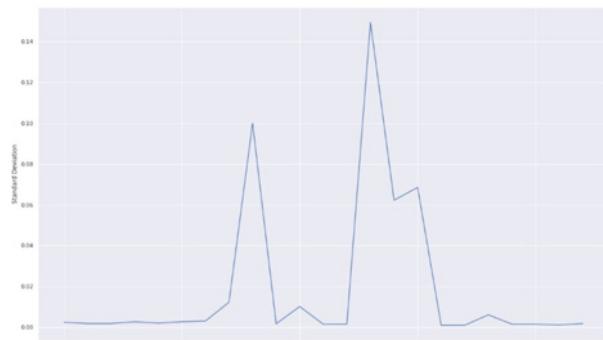
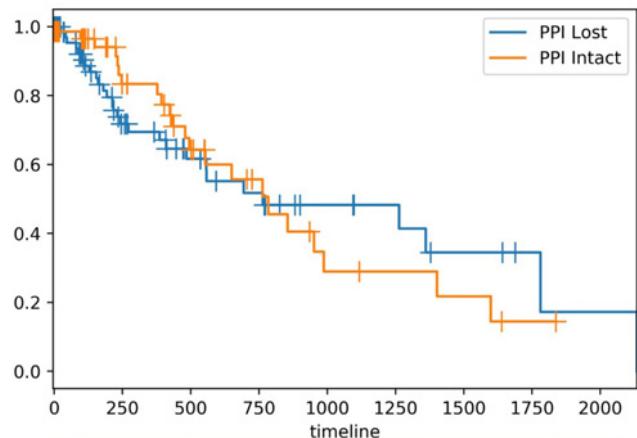
Bladder
LILRB1 and NM_002339
LILRB1 - LSP1
PDB: 4NO0 (Chains D and C)

Bladder
NM_002771 and NM_006287
PRSS3 - TFPI
PDB: 6BX8 (Chains A and E)

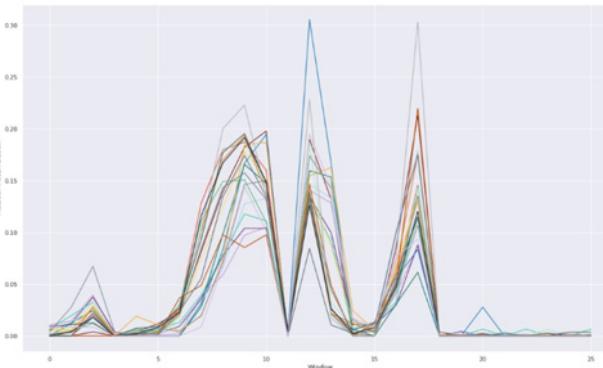
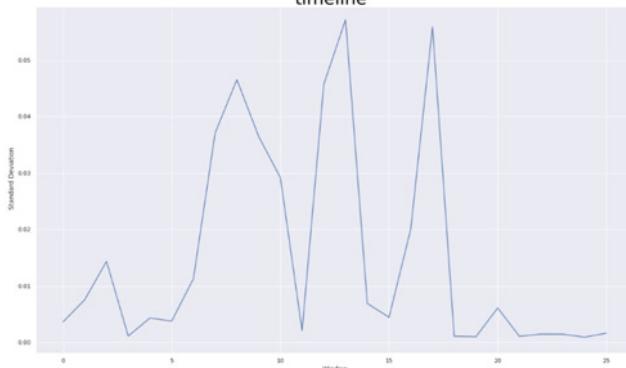


Esophagus
NM_002124 and NM_019111
HLA-DRB1 - HLA-DRA
PDB: 6HBY (Chains B and A)

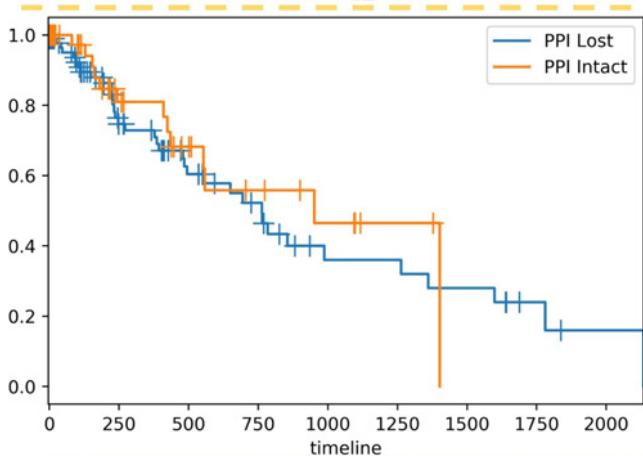
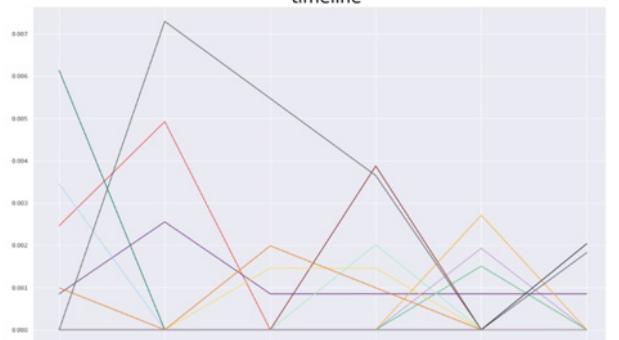
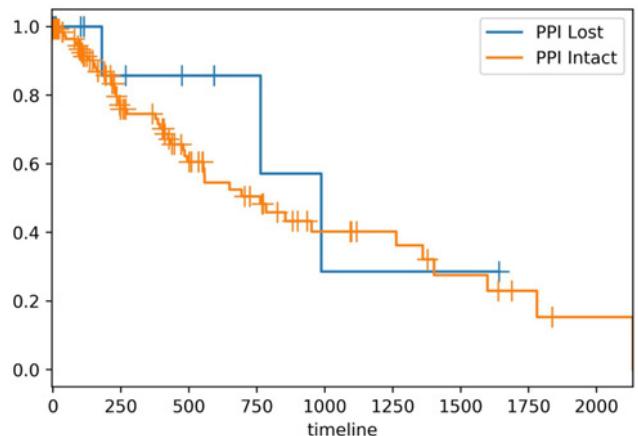
Esophagus
 LILRB1 and NM_004048
 LILRB1 - B2M
 PDB: 4NO0 (Chains D and B)



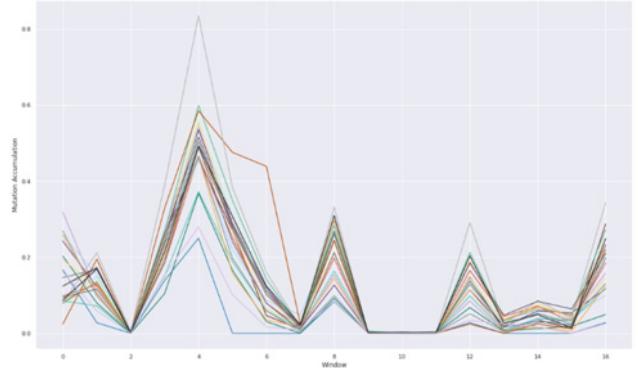
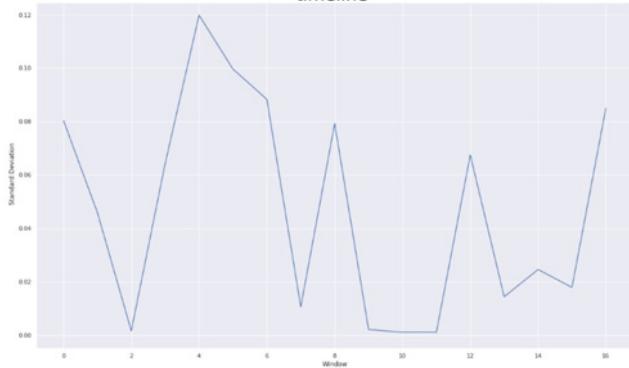
Esophagus
 LILRB2 and NM_004048
 LILRB2-B2M
 PDB: 2DYP (Chains D and B)



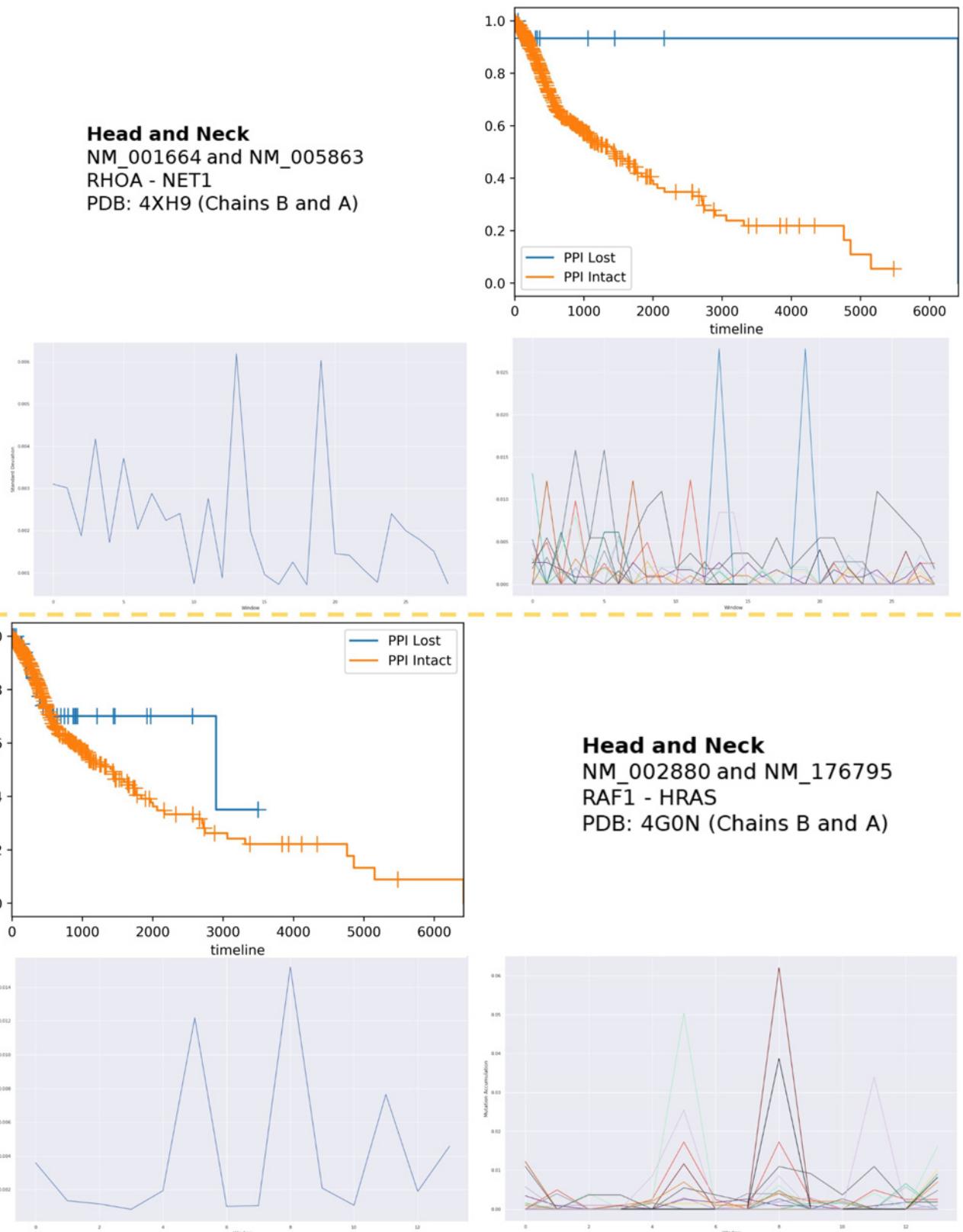
Esophagus
 MTOR and NM_003161
 MTOR - RPS6KB1
 PDB: 5WBH (Chains A and W)



Esophagus
 NM_002771 and NM_006287
 PRSS3 - TFPI
 PDB: 6BX8 (Chains A and E)

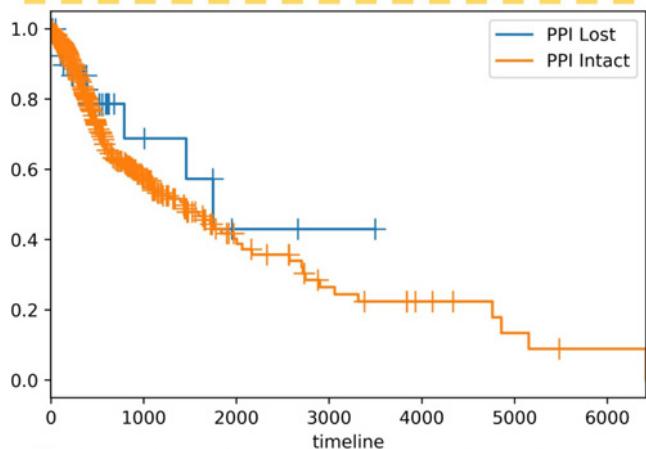
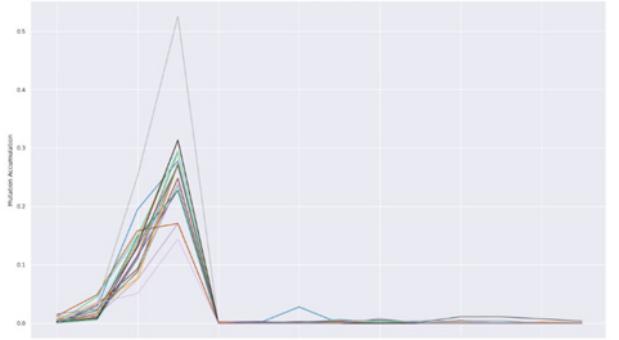
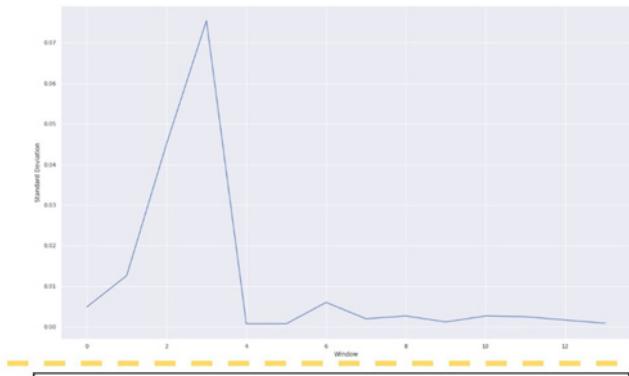
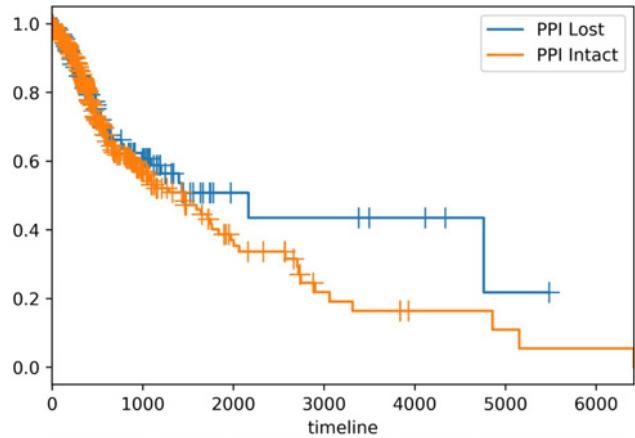


Head and Neck
 NM_001664 and NM_005863
 RHOA - NET1
 PDB: 4XH9 (Chains B and A)

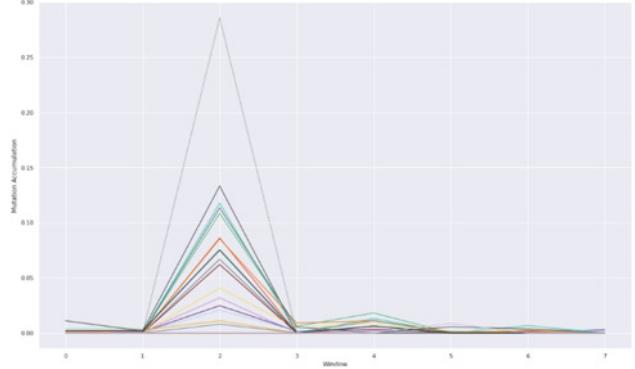
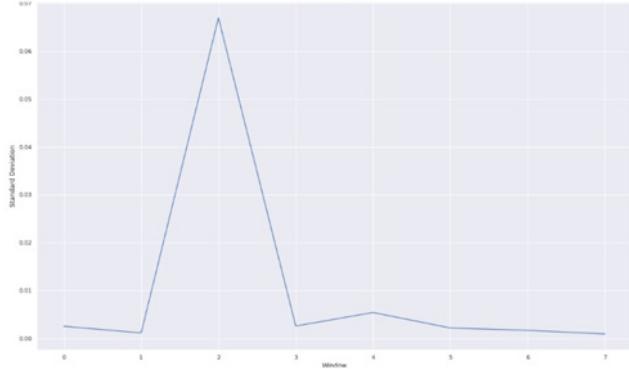


Head and Neck
 NM_002880 and NM_176795
 RAF1 - HRAS
 PDB: 4G0N (Chains B and A)

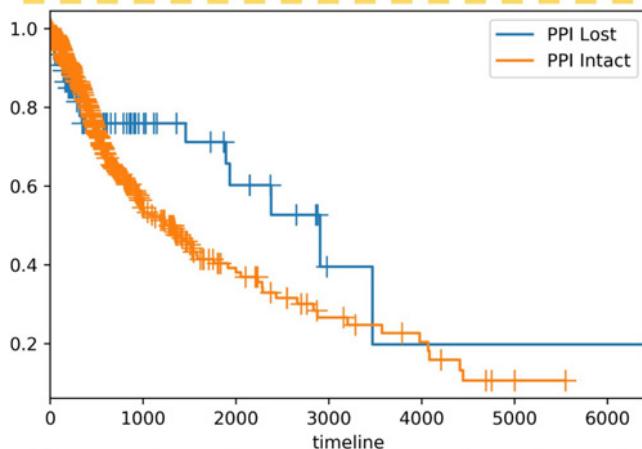
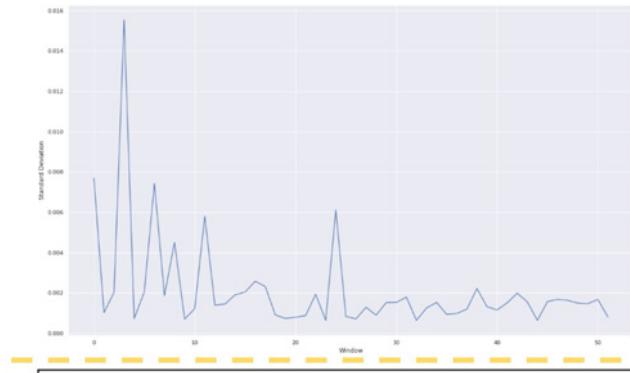
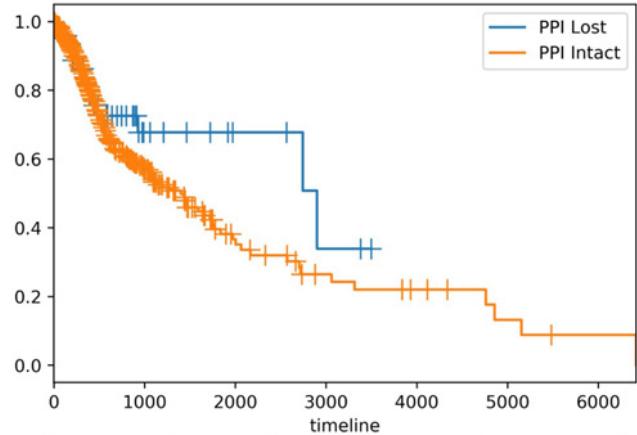
Head and Neck
 NM_002124 and NM_019111
 HLA-DRB1 - HLA-DRA
 PDB: 6HBY (Chains B and A)



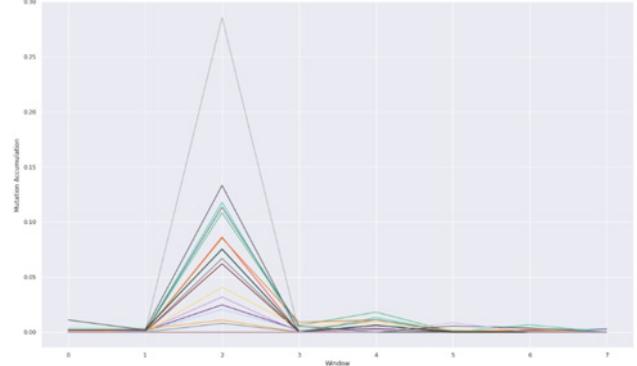
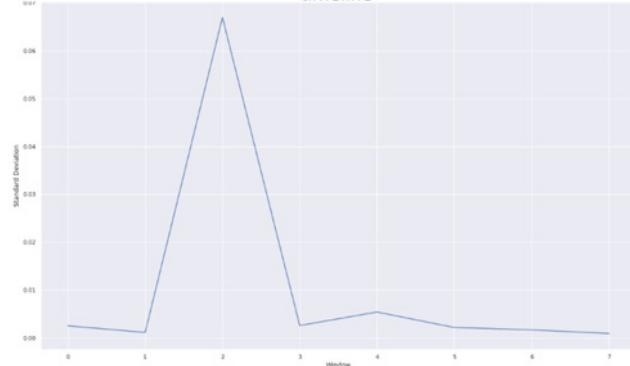
Head and Neck
 NM_001164 and NM_000484
 APBB1 - APP
 PDB: 3DXC (Chains A and B)



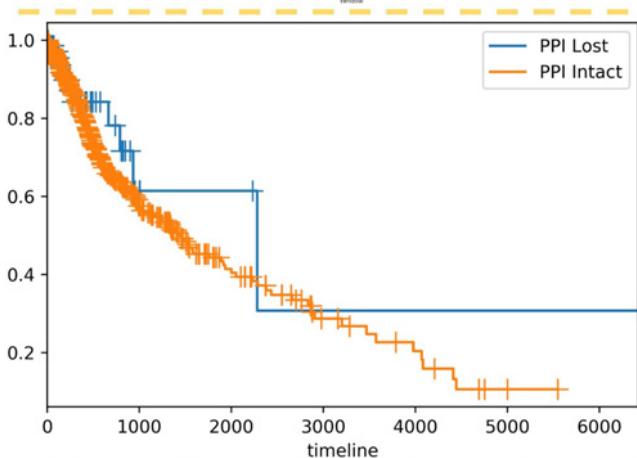
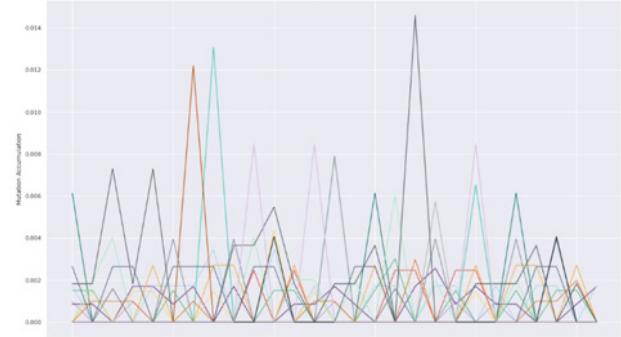
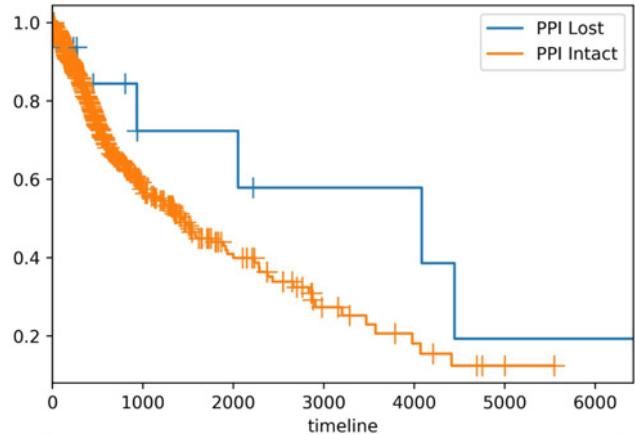
Head and Neck
 NM_176795 and_NM_001282427
 HRAS - PIK3CG
 PDB: 1HE8 (Chains B and A)



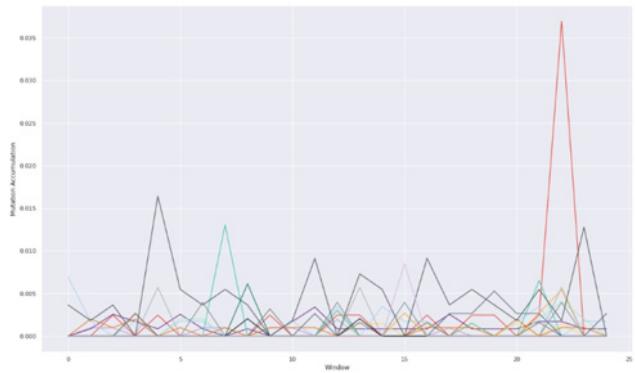
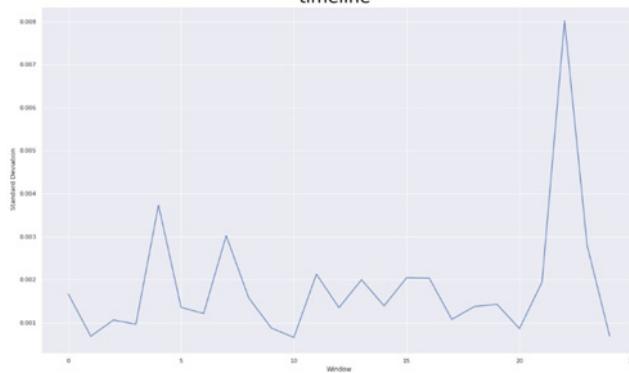
Brain
 NM_001164 and_NM_000484
 APBB1 - APP
 PDB: 3DXC (Chains A and B)



Brain
 NM_017617 and NM_001004354
 NOTCH1 - NRARP
 PDB: 6PY8 (Chains F and B)

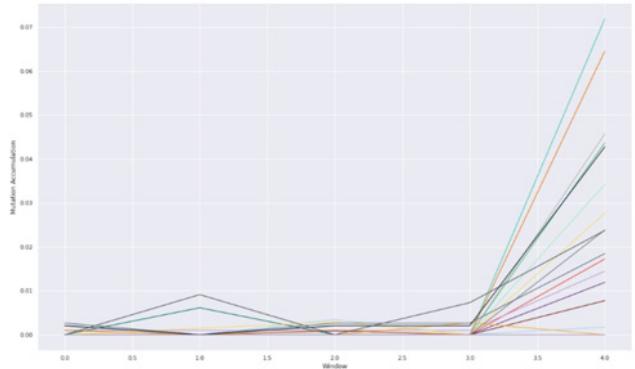
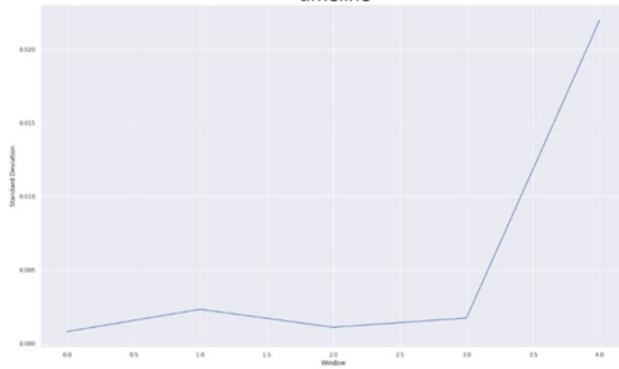
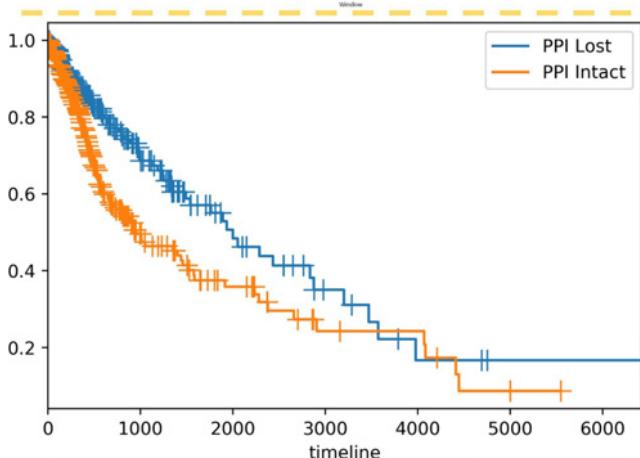
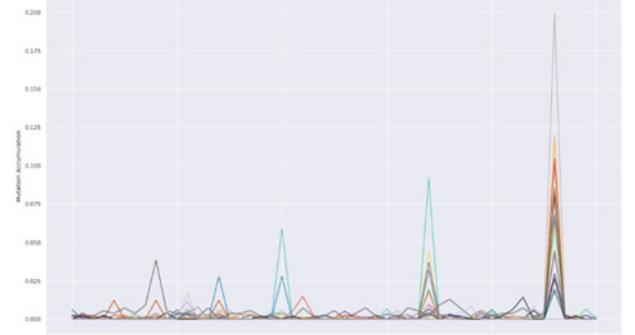
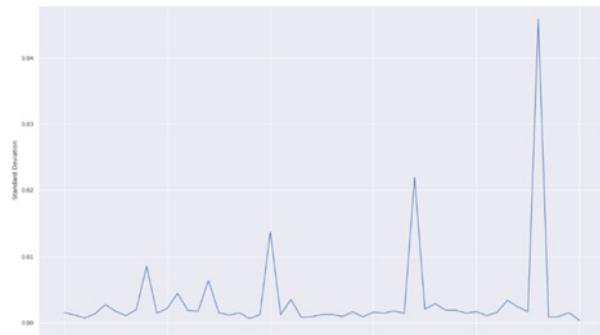
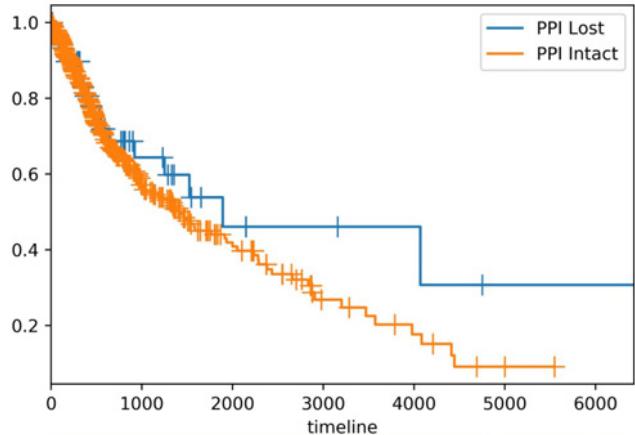


Brain
 NM_005123 and NM_002957
 NR1H4 - RXRA
 PDB: 6A5Z (Chains A and D)



Brain

NM_012433 and NM_031287
SF3B1 - SF3B5
PDB: 5IFE (Chains C and B)

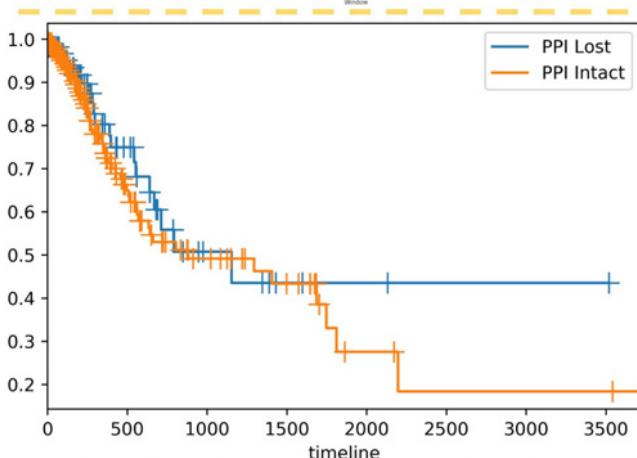
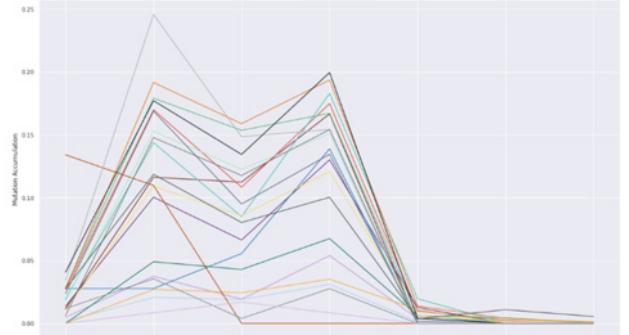
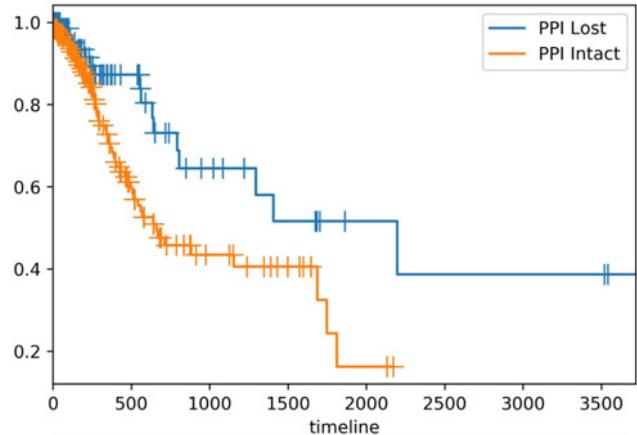


Brain

NM_000546 and NM_001429
TP53 - EP300
PDB: 2K8F (Chains B and A)

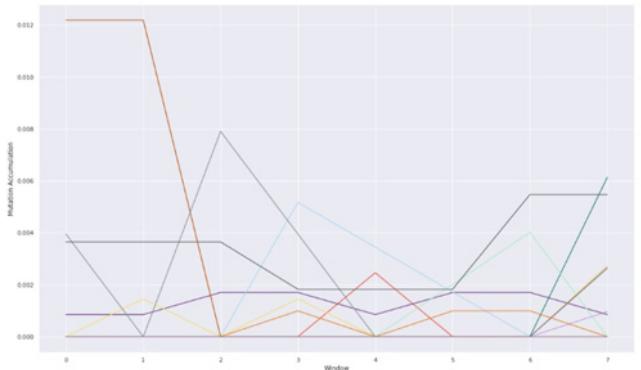
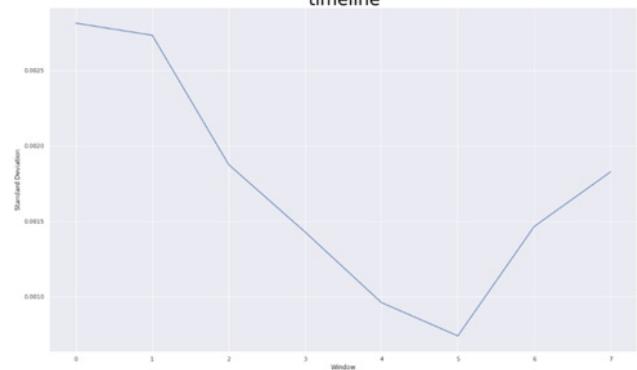
Stomach

NM_002568 and NM_016480
PABPC1 - PAIP2
PDB: 1JGN (Chains A and B)

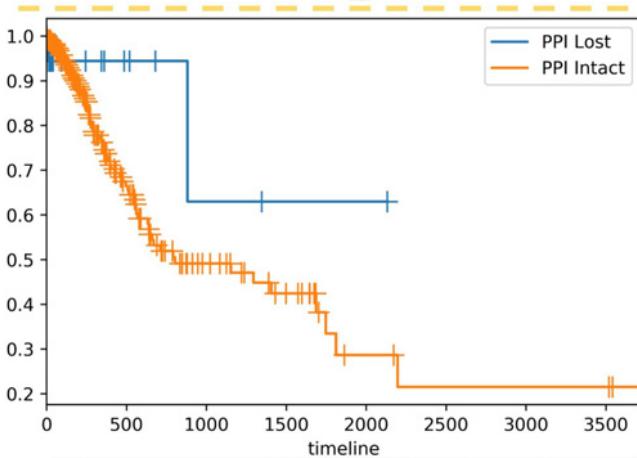
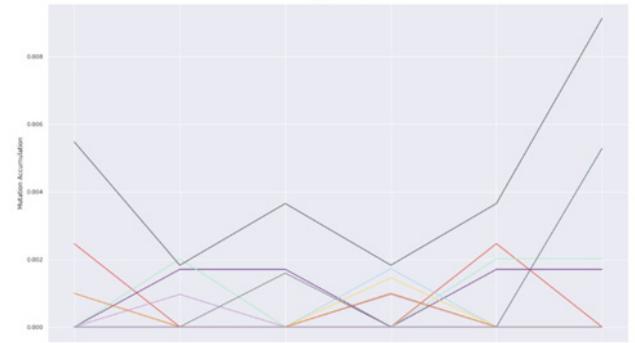
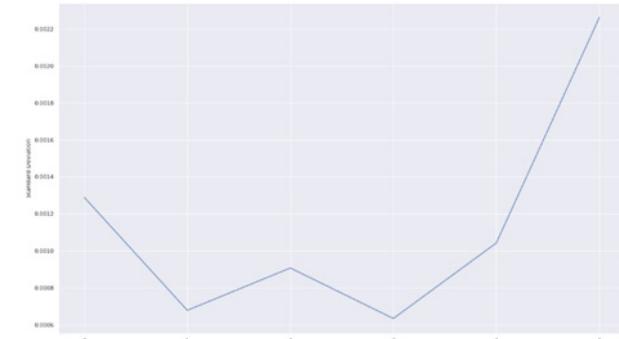
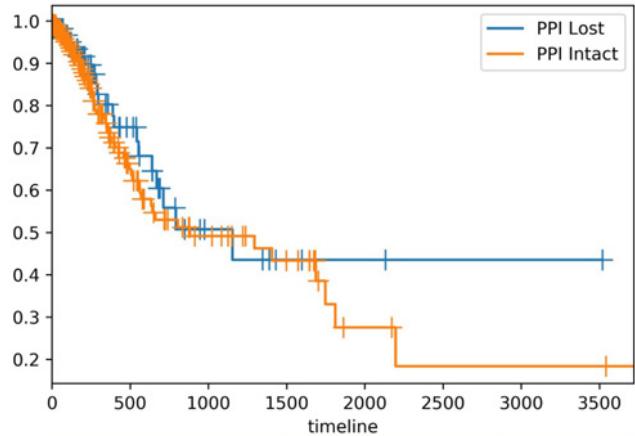


Stomach

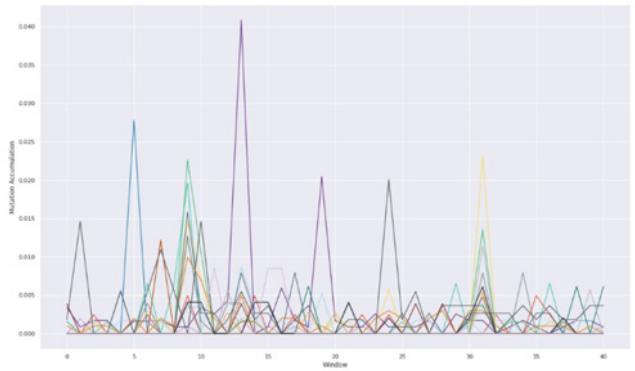
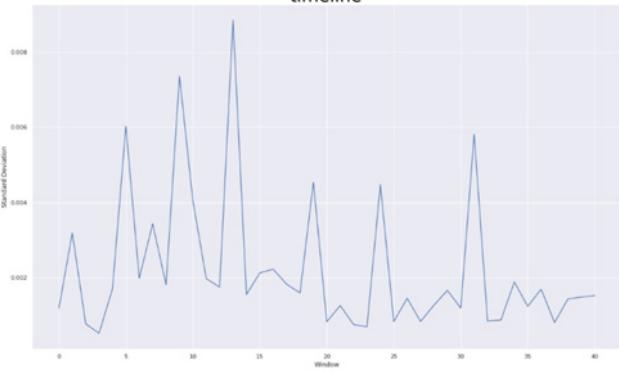
MDM2 and NM_000546
MDM2 - TP53
PDB: 1YCR (Chains A and B)



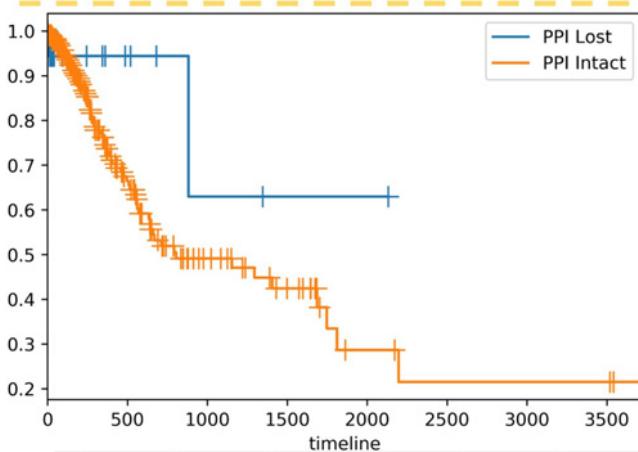
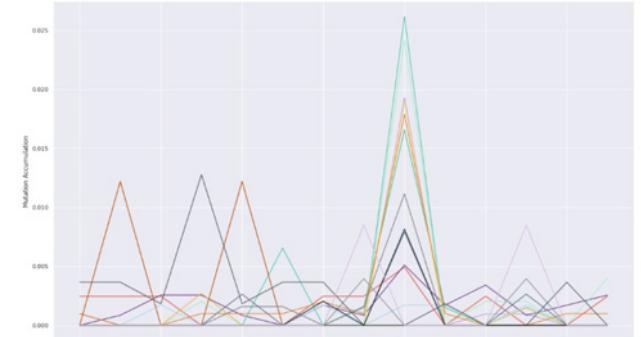
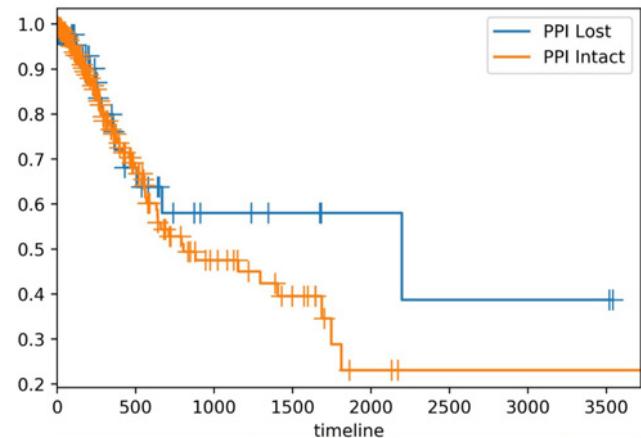
Stomach
NM_000546 and NM_005316
TP53 - GTF2H1
PDB: 2RUK (Chains A and B)



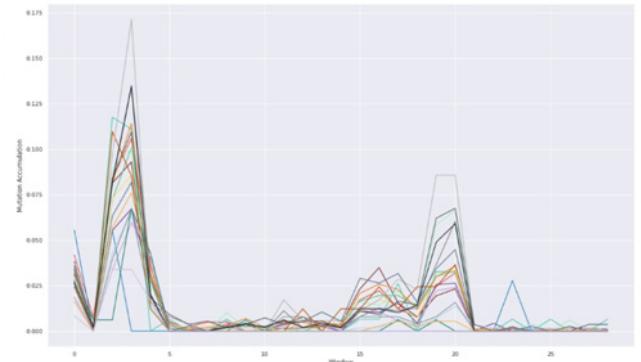
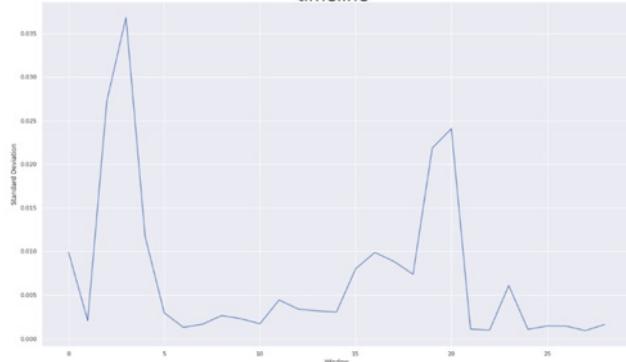
Stomach
NM_001254 and NM_014225
CDC6 - PPP2R1A
PDB: 4I5L (Chains B and A)



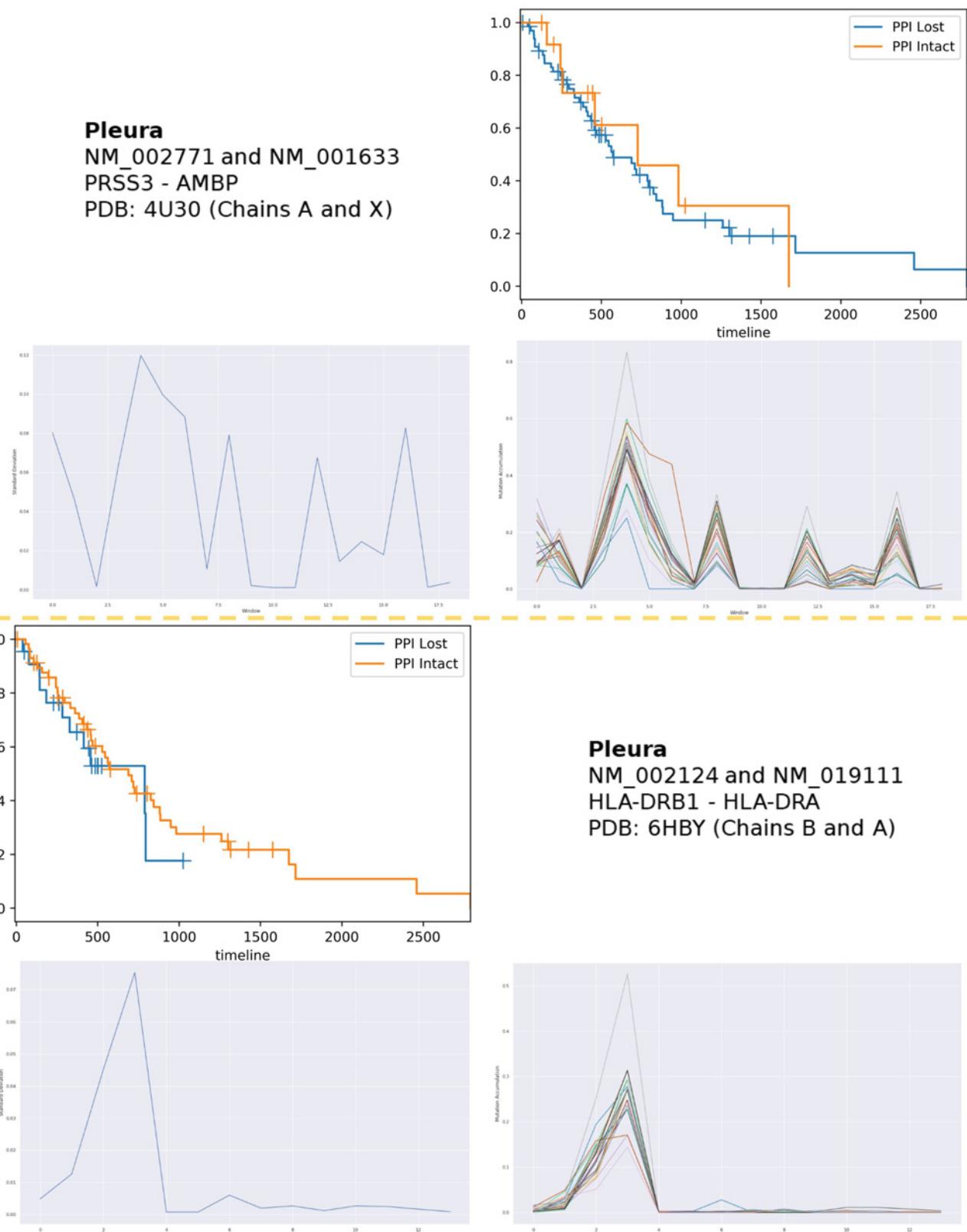
Stomach
NM_005154 and NM_005785
USP8 - RNF41
PDB: 2GWF (Chains A and B)



Pleura
NM_013289 and NM_004048
KIR3DL1 - B2M
PDB: 5B38 (Chains G and B)

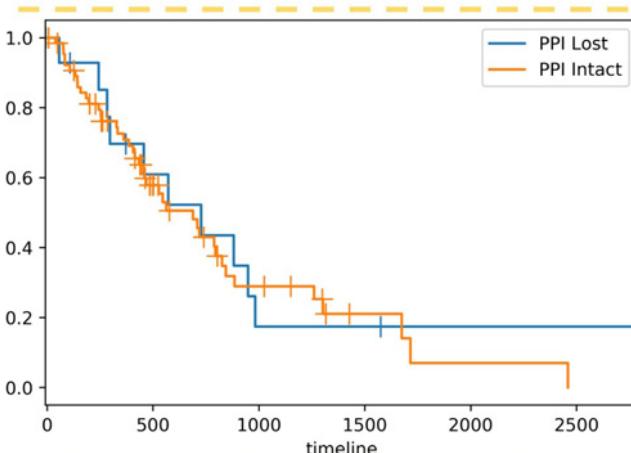
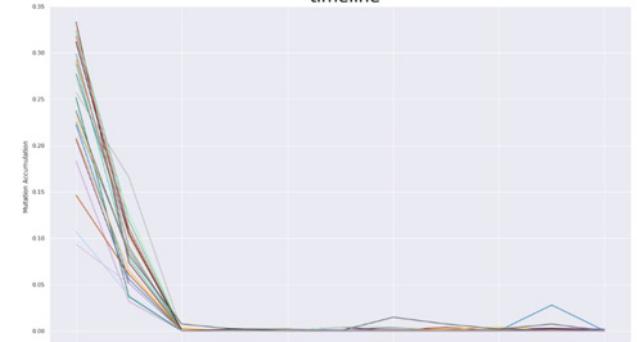
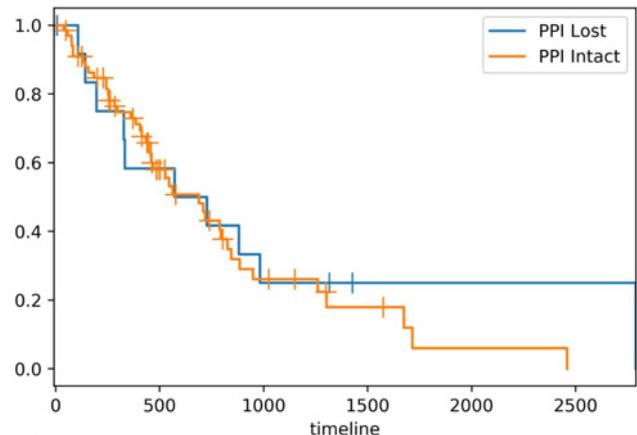


Pleura
NM_002771 and NM_001633
PRSS3 - AMBP
PDB: 4U30 (Chains A and X)

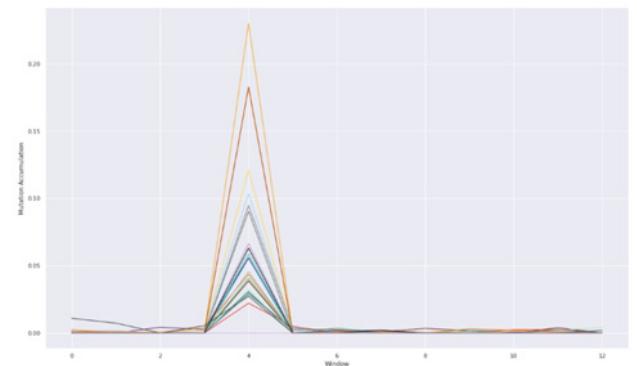
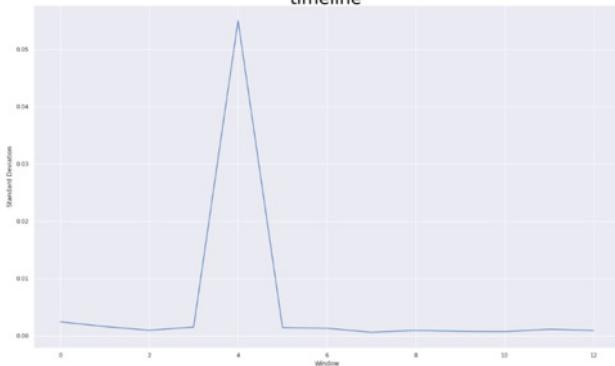


Pleura
NM_002124 and NM_019111
HLA-DRB1 - HLA-DRA
PDB: 6HBY (Chains B and A)

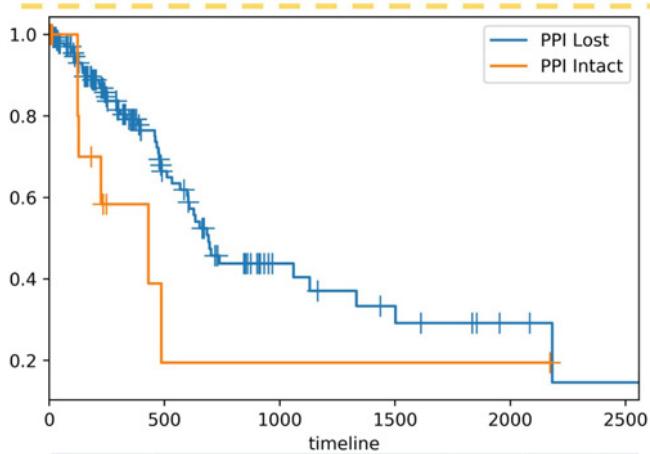
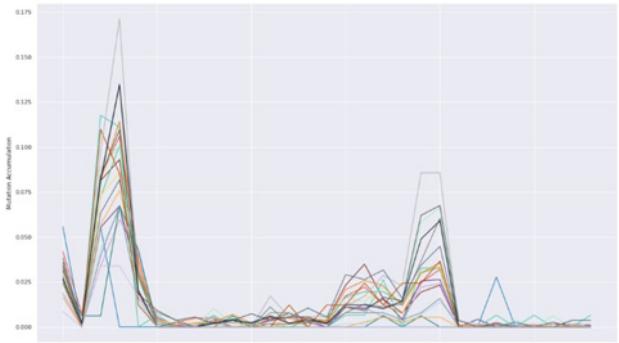
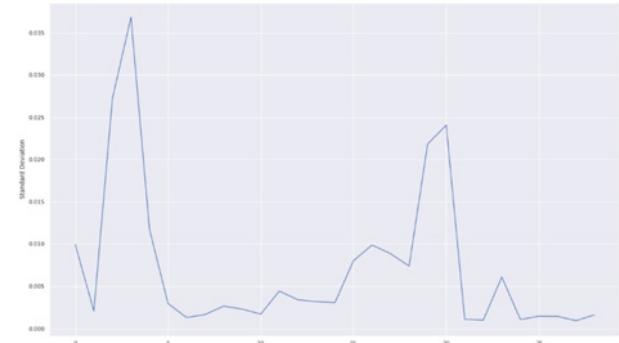
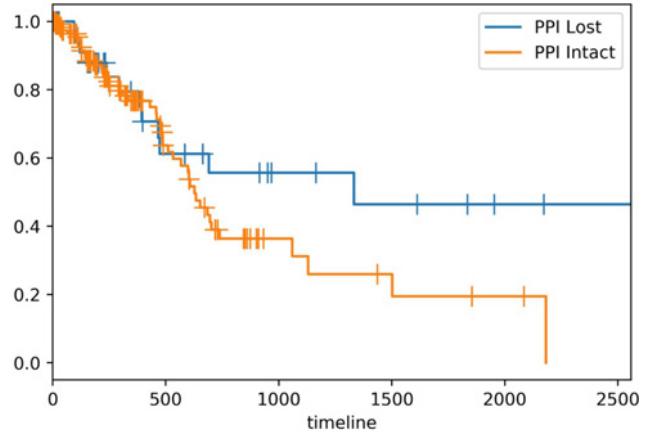
Pleura
NM_004095 and NM_004846
EIF4EBP1 - EIF4E2
PDB: 5NVN (Chains B and A)



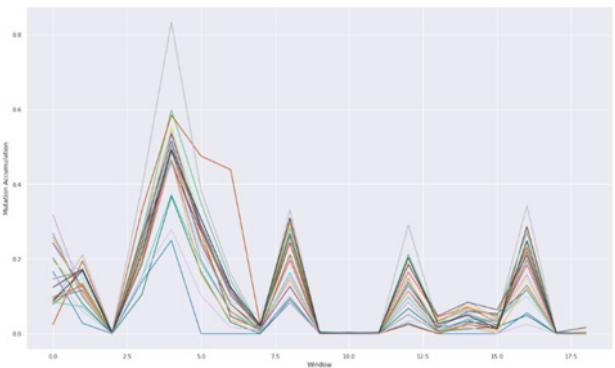
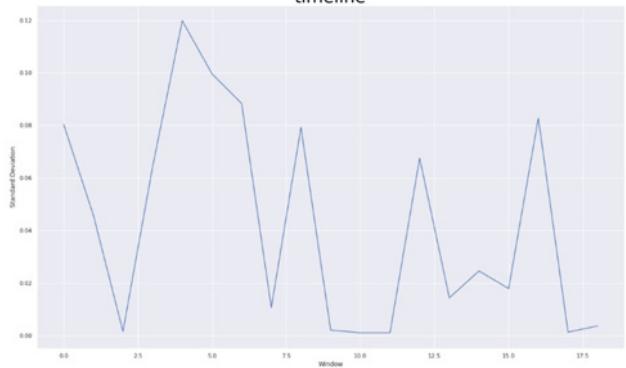
Pleura
NM_017745 and NM_032673
BCOR - PCGF1
PDB: 4HPL (Chains A and B)



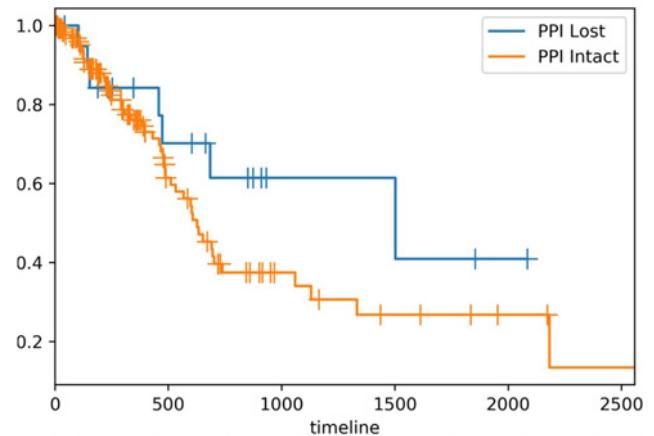
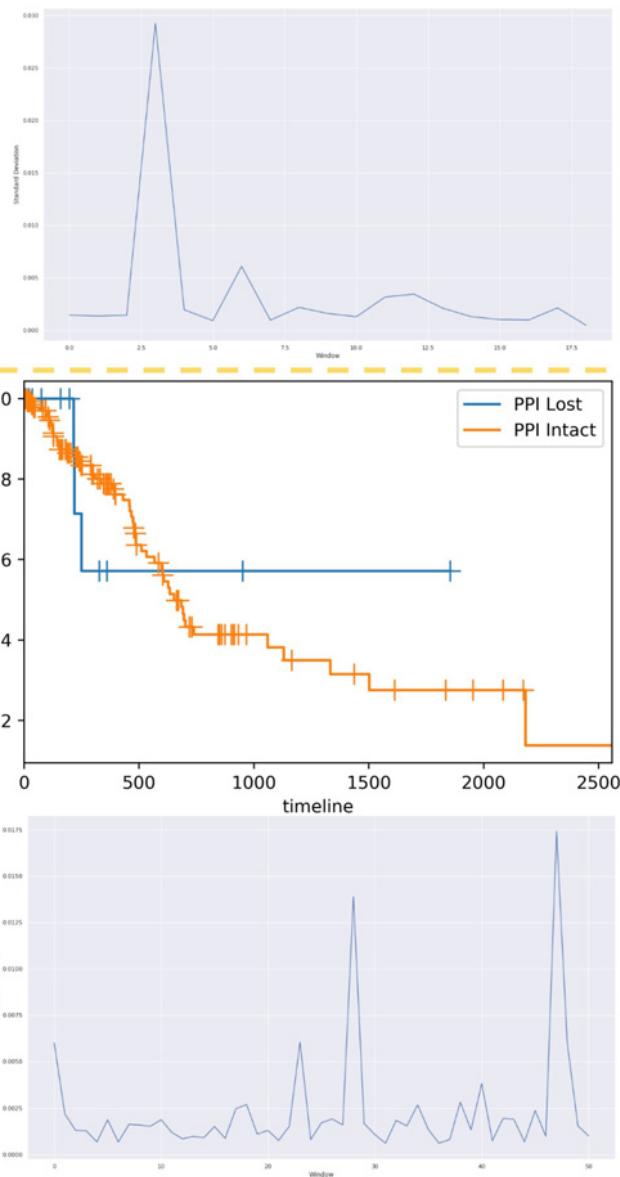
Pancreatic
NM_013289 and NM_004048
KIR3DL1 - B2M
PDB: 5B38 (Chains G and B)



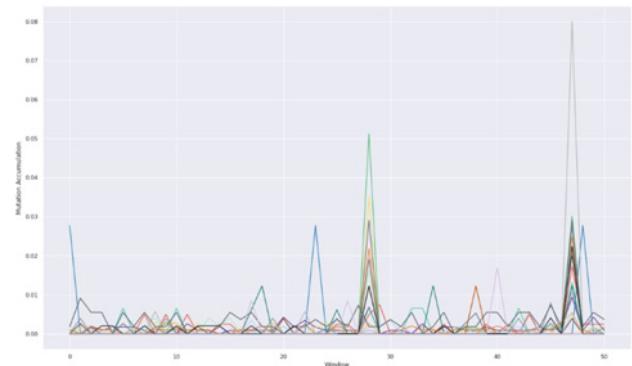
Pancreatic
NM_002771 and NM_001633
PRSS3 - AMBP
PDB: 4U30 (Chains A and X)



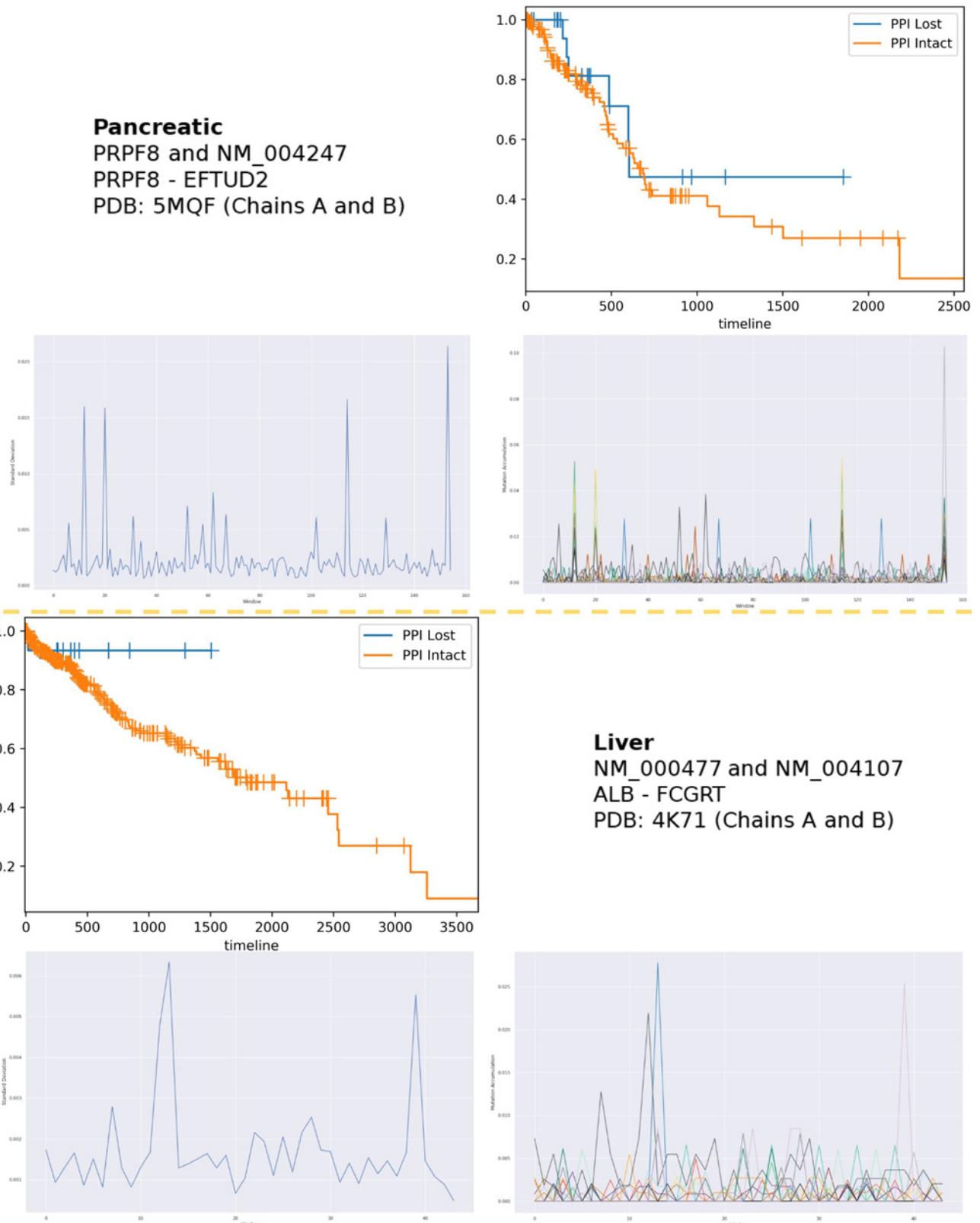
Pancreatic
NM_080703 and NM_015949
BAG6 - GET4
PDB: 6AU8 (Chains C and A)



Pancreatic
NM_014652 and NM_001412
IPO13 - EIF1AX
PDB: 3ZJY (Chains B and C)

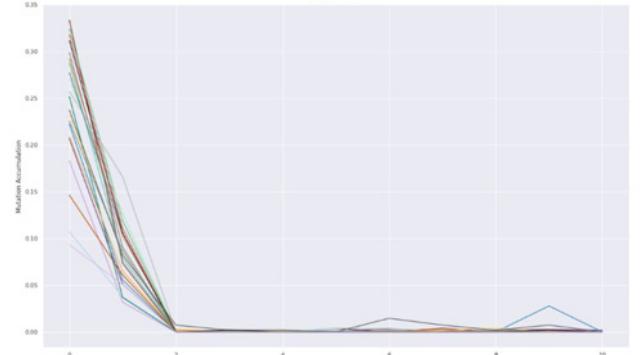
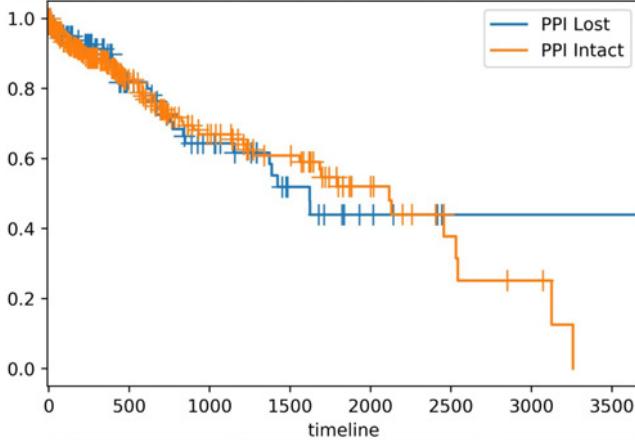
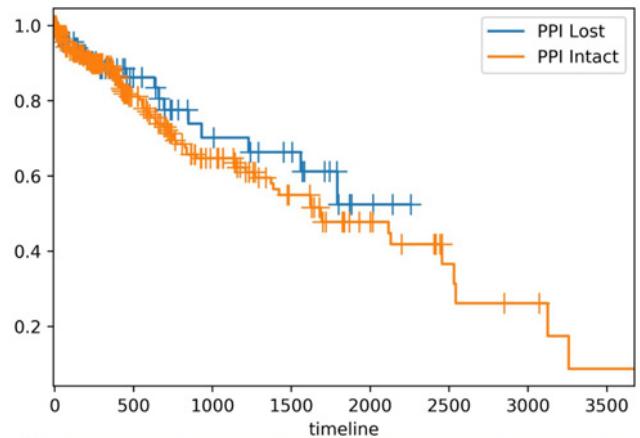


Pancreatic
 PRPF8 and NM_004247
 PRPF8 - EFTUD2
 PDB: 5MQF (Chains A and B)

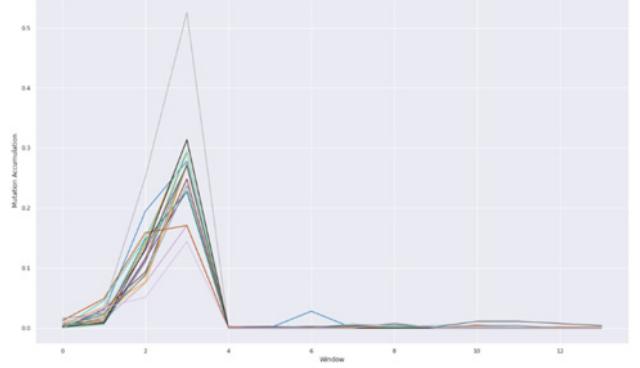
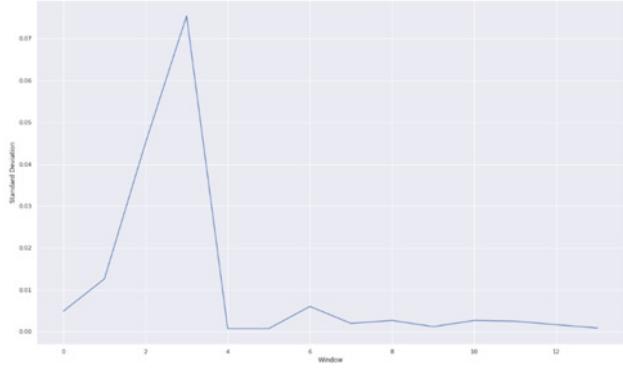


Liver
 NM_000477 and NM_004107
 ALB - FCGRT
 PDB: 4K71 (Chains A and B)

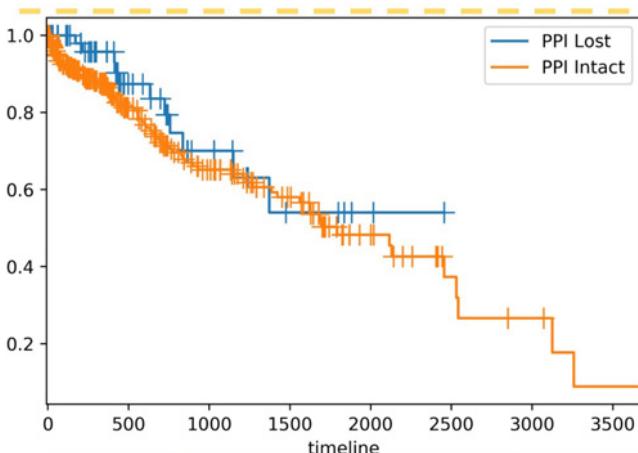
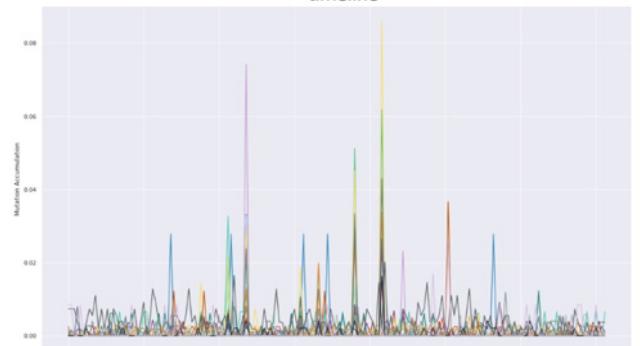
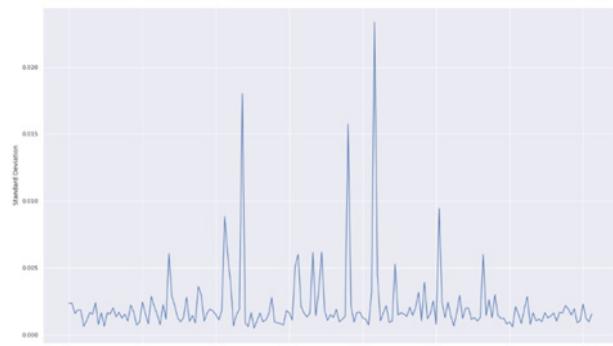
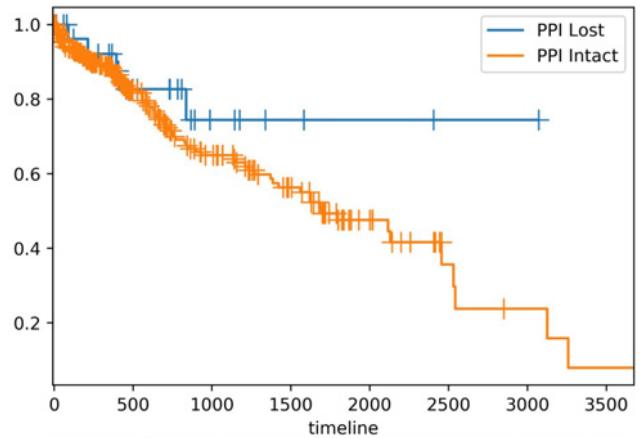
Liver
NM_004095 and NM_004846
EIF4EBP1 - EIF4E2
PDB: 5NVN (Chains B and A)



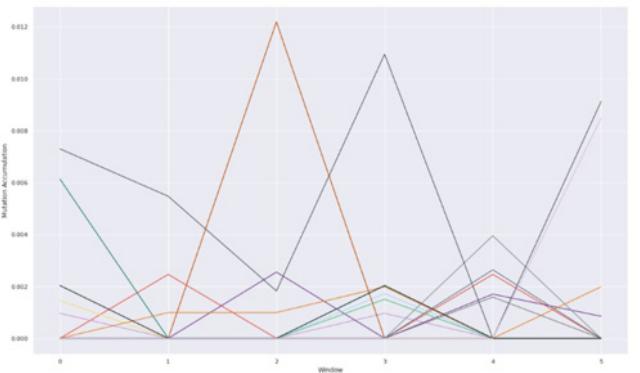
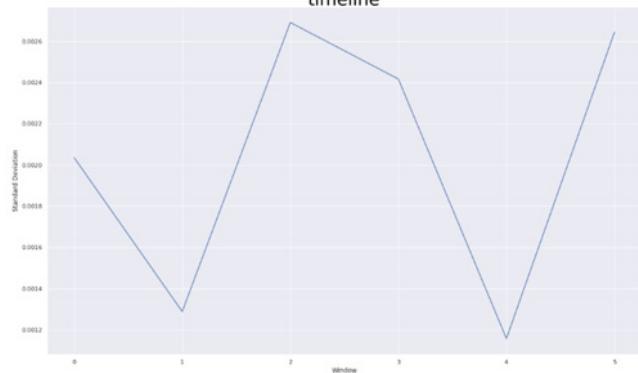
Liver
NM_002124 and NM_019111
HLA-DRB1 - HLA-DRA
PDB: 6HBY (Chains B and A)



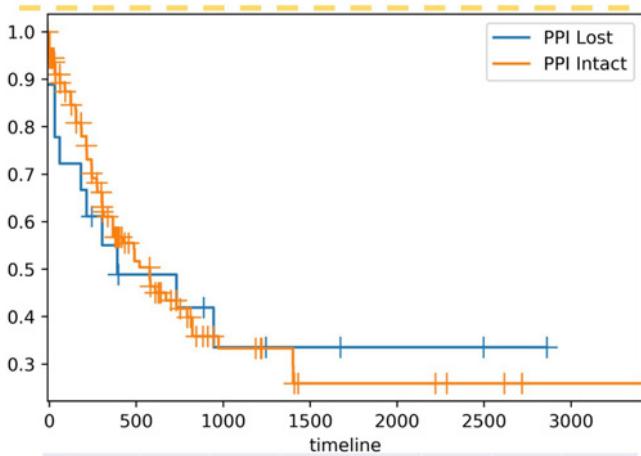
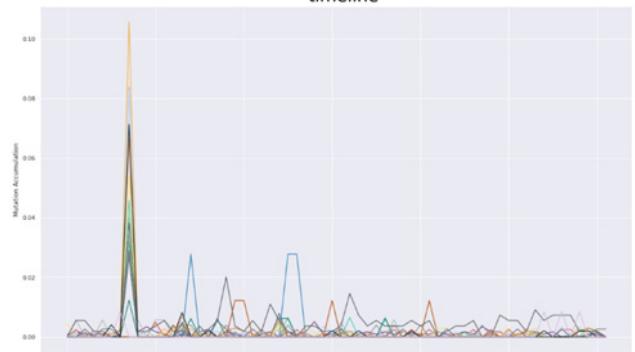
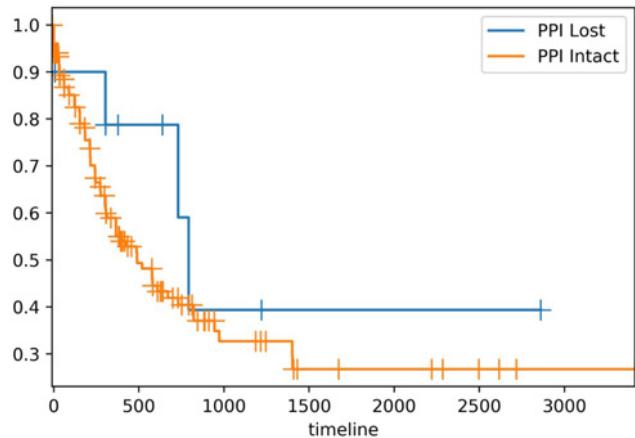
Liver
 MTOR and NM_020761
 MTOR - RPTOR
 PDB: 5H64 (Chains A and B)



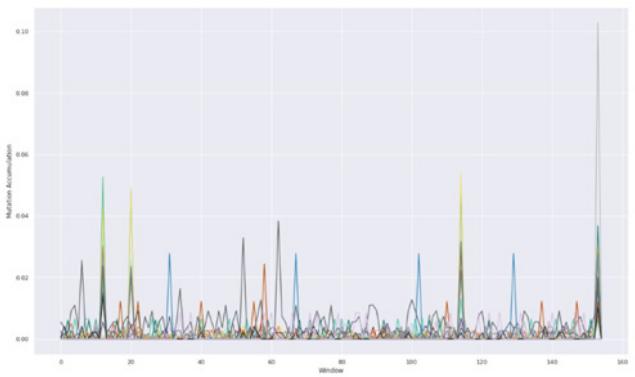
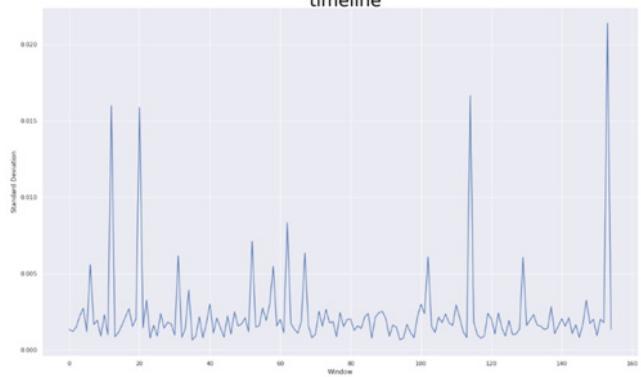
Liver
 NM_000546 and NM_002128
 TP53 - HMGB1
 PDB: 2LY4 (Chains B and A)



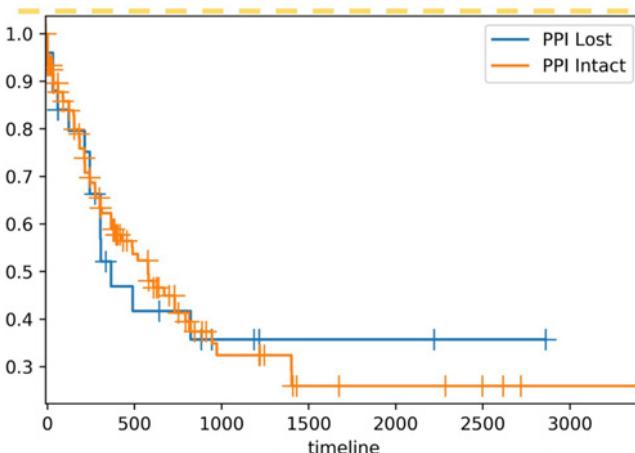
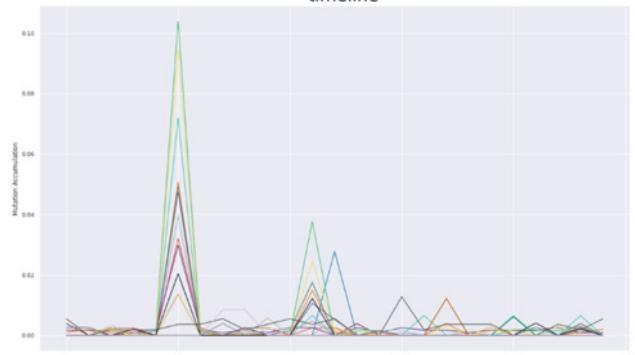
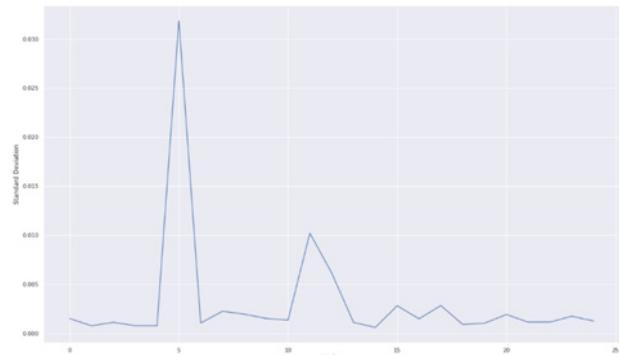
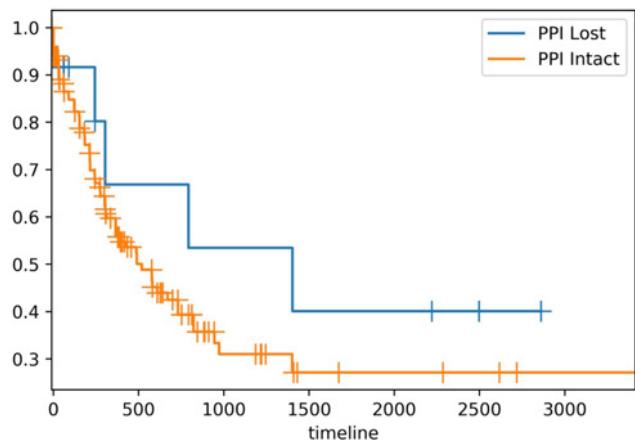
Bone Marrow
 NM_000183 and NM_000182
 HADHB - HADHA
 PDB: 6DV2 (Chains A and G)



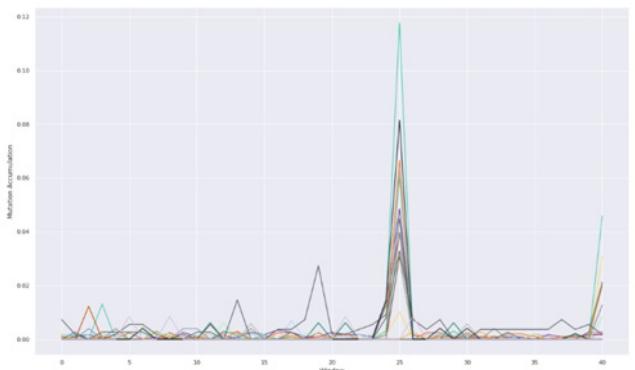
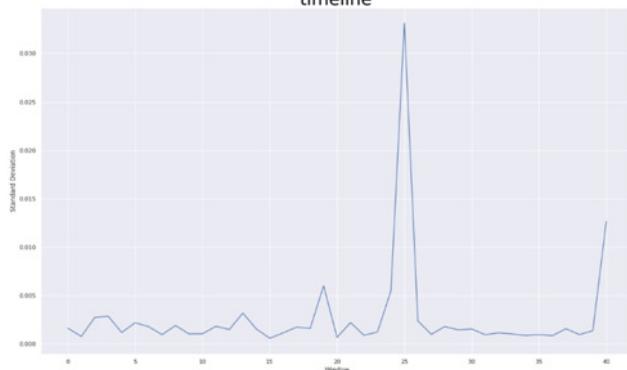
Bone Marrow
 PRPF8 and NM_004247
 PRPF8 - EFTUD2
 PDB: 5MQF (Chains A and B)



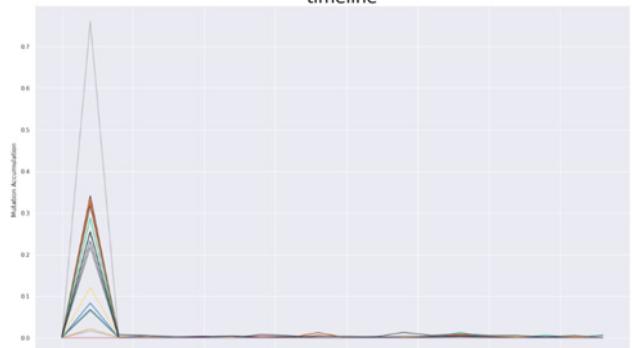
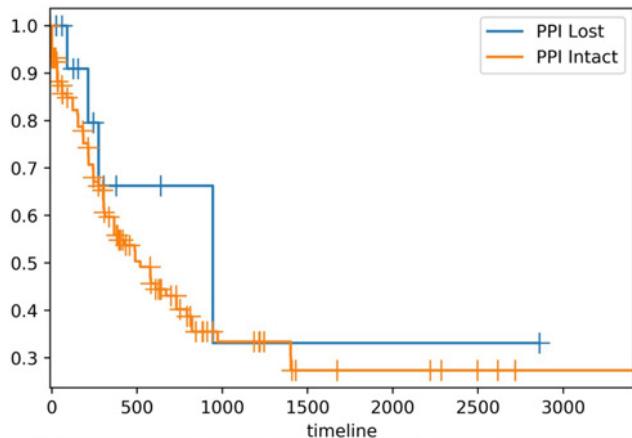
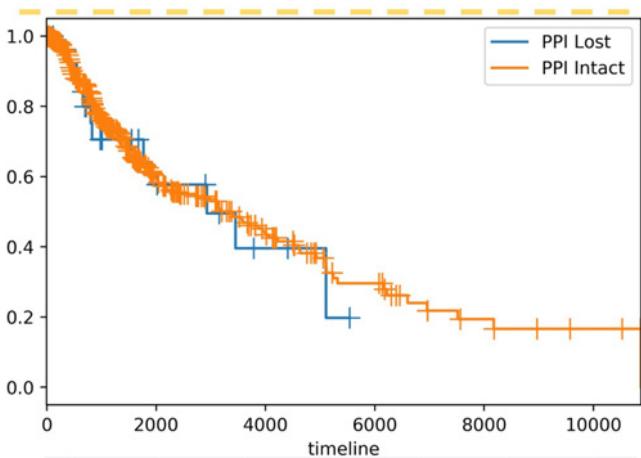
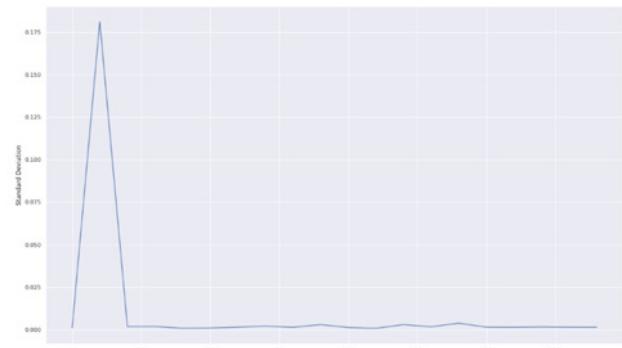
Bone Marrow
NM_000602 and NM_000930
SERPINE1 - PLAT
PDB: 5ZLZ (Chains I and E)



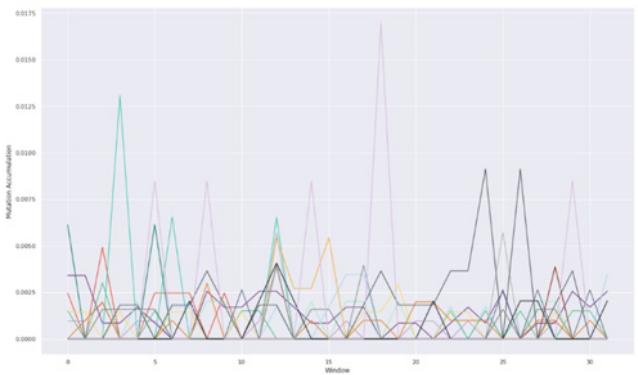
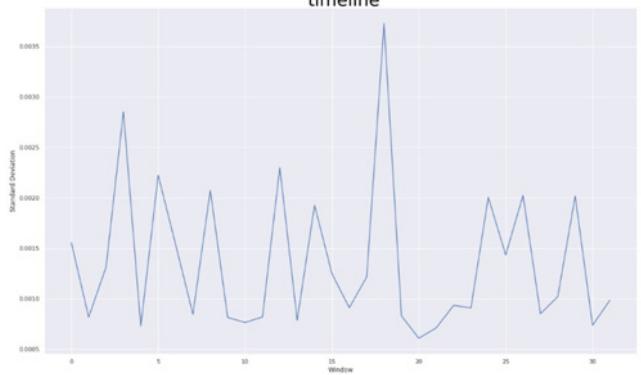
Bone Marrow
NM_017617 and NM_015874
NOTCH1-RBPJ
PDB: 2F8X (Chains K and C)



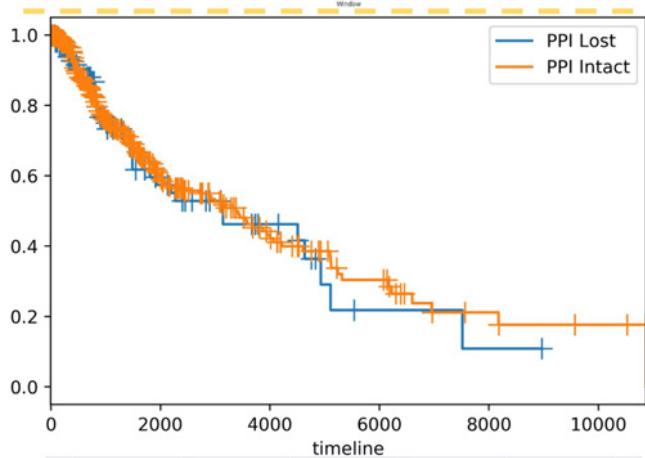
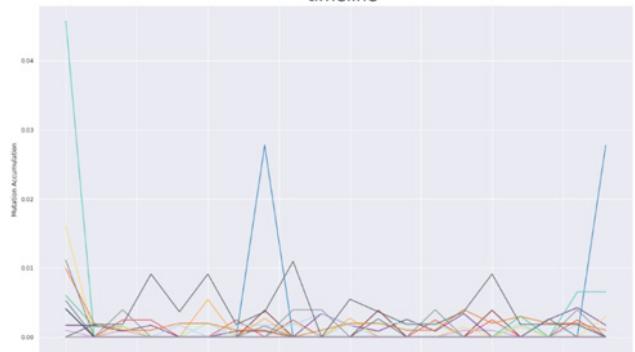
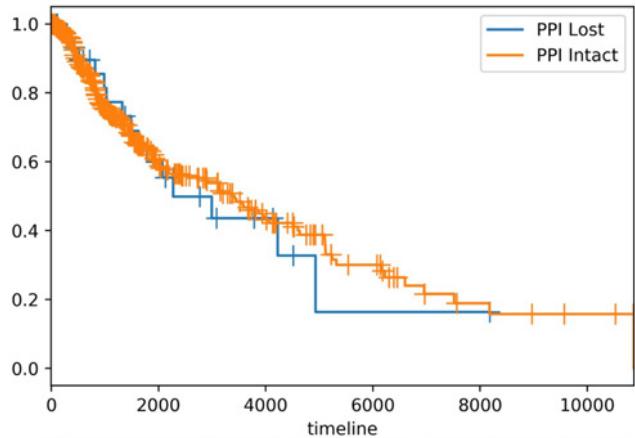
Bone Marrow
 NM_002156 and NM_002157
 HSPD1 - HSPE1
 PDB: 4PJ1 (Chains A and O)



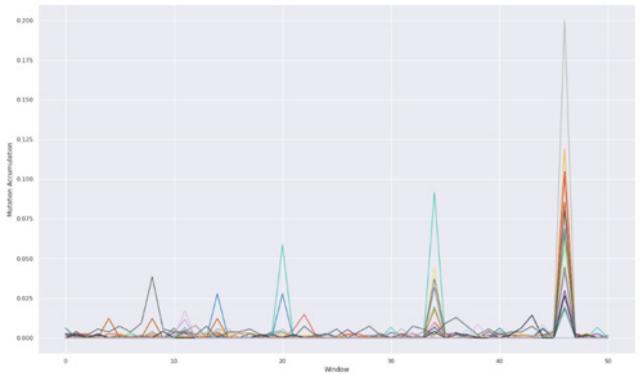
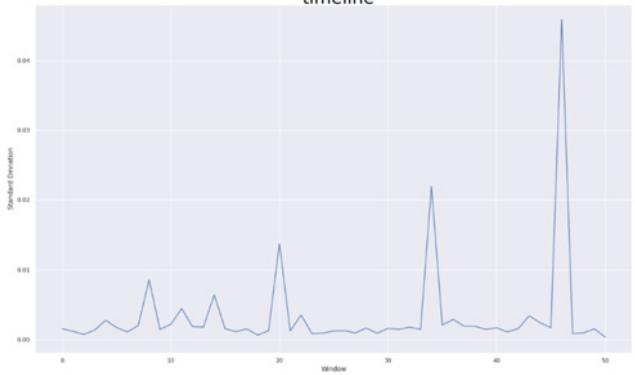
Melanoma
 NM_000260 and NM_005709
 MYO7A - USH1C
 PDB: 5MV9 (Chains A and B)



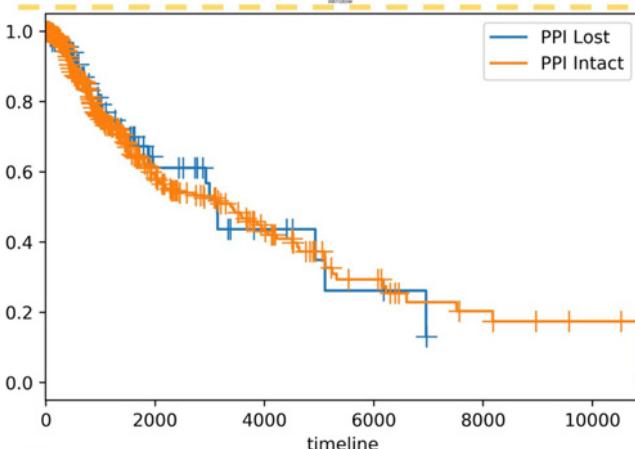
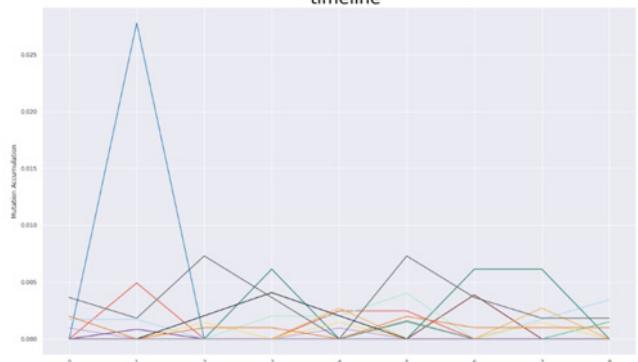
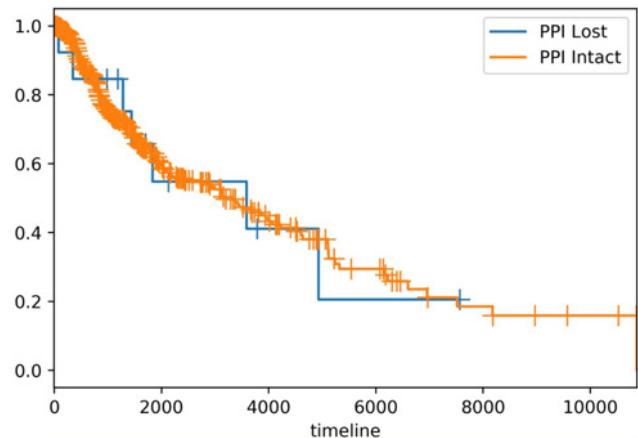
Melanoma
NM_053064 and NM_001742
GNG2 - CALCR
PDB: 6NIY (Chains G and R)



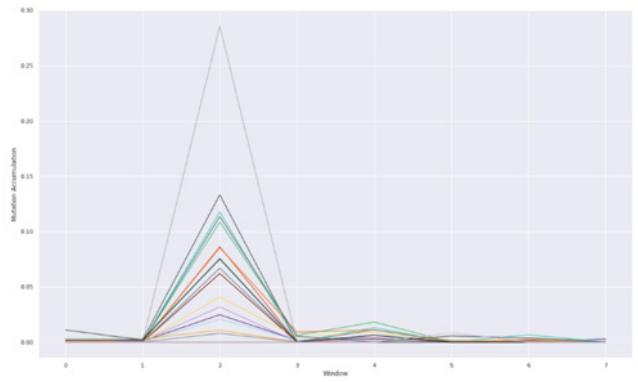
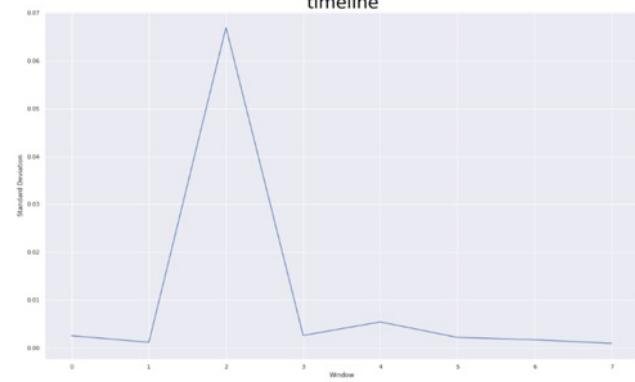
Melanoma
NM_012433 and NM_031287
SF3B1 - SF3B5
PDB: 5IFE (Chains C and B)



Melanoma
NM_016399 and NM_013237
TRIAP1 - PRELID1
PDB: 6I3V (Chains A and F)

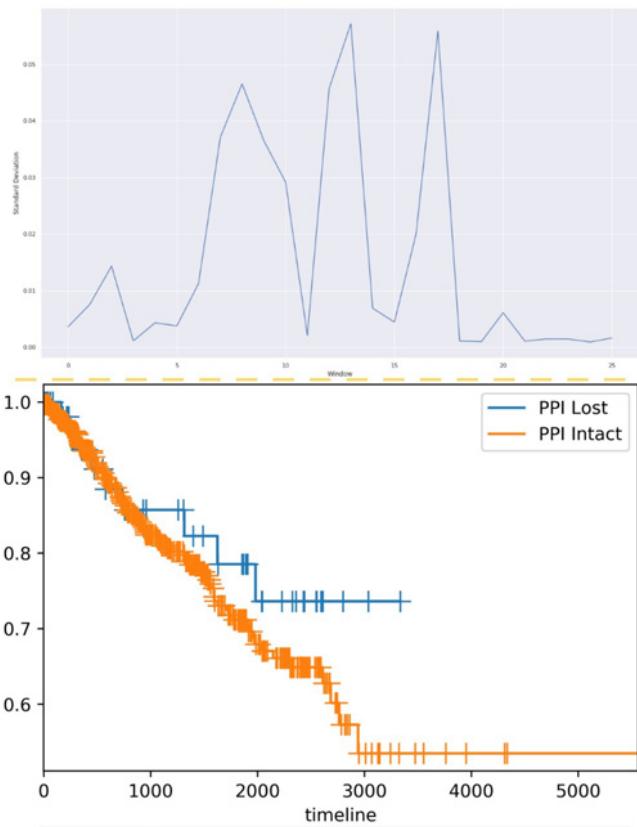
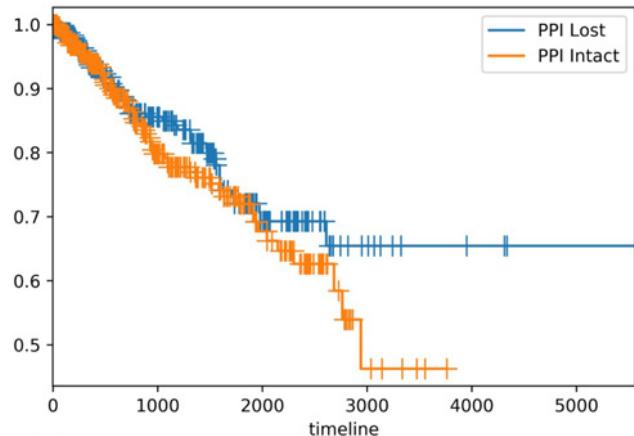


Melanoma
NM_001164 and NM_000484
APBB1 - APP
PDB: 3DXC (Chains A and F)



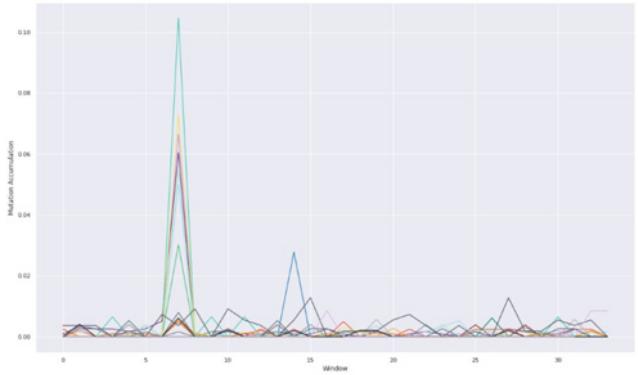
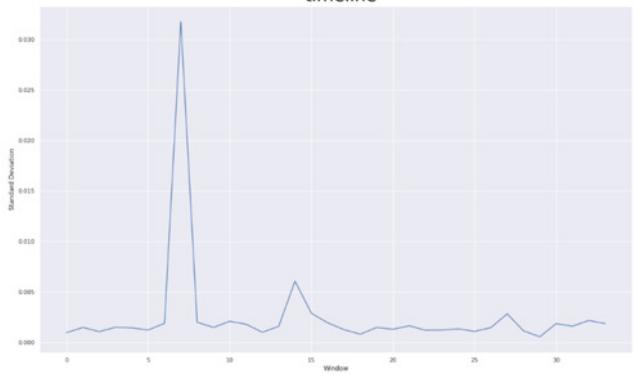
Kidney

LILRB2 and NM_004048
LILRB2 - B2M
PDB: 2DYP (Chains D and B)

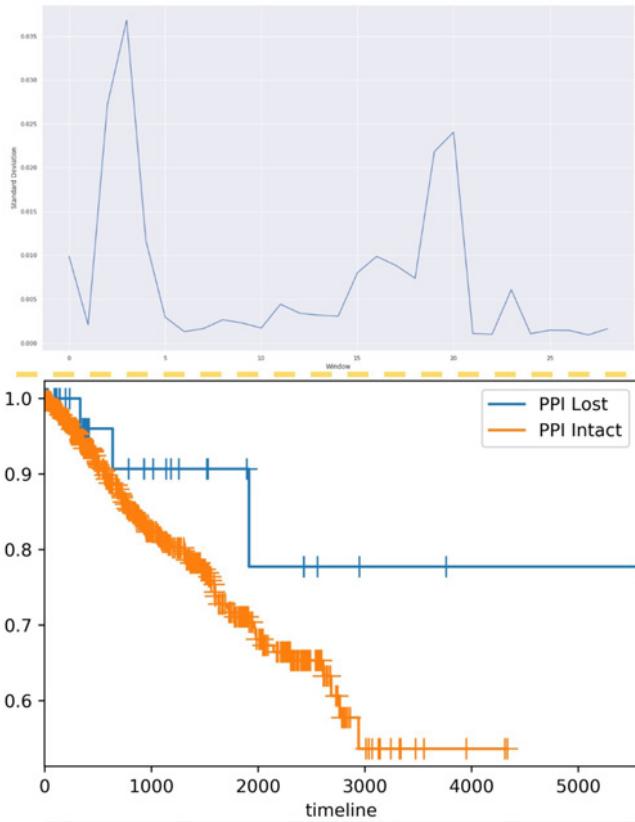
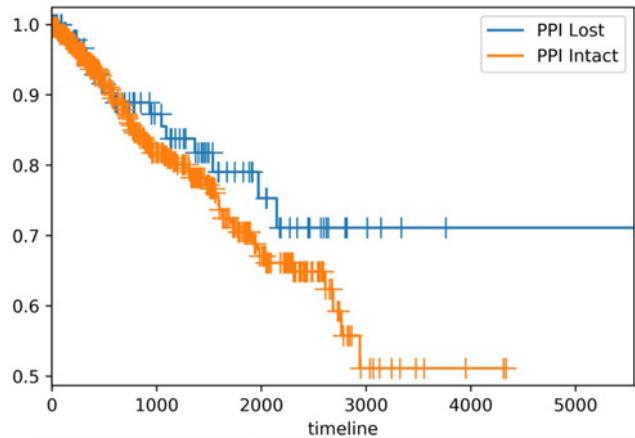


Kidney

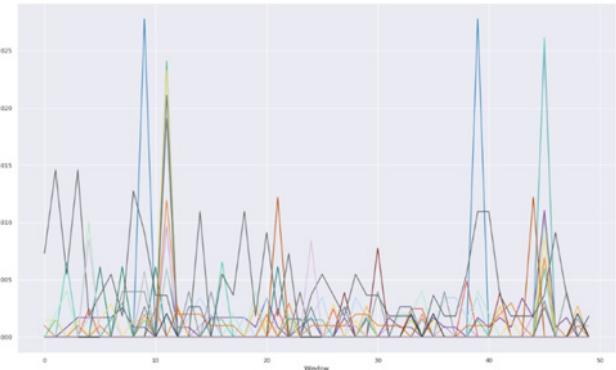
NM_000516 and NM_002074
GNAS - GNB1
PDB: 6NIY (Chains A and B)



Kidney
NM_013289 and NM_004048
KIR3DL1 - B2M
PDB: 5B38 (Chains G and B)

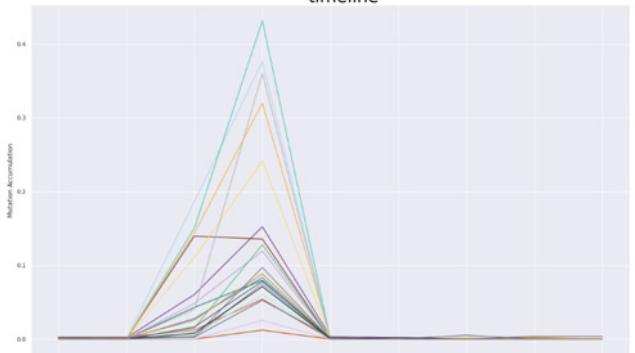
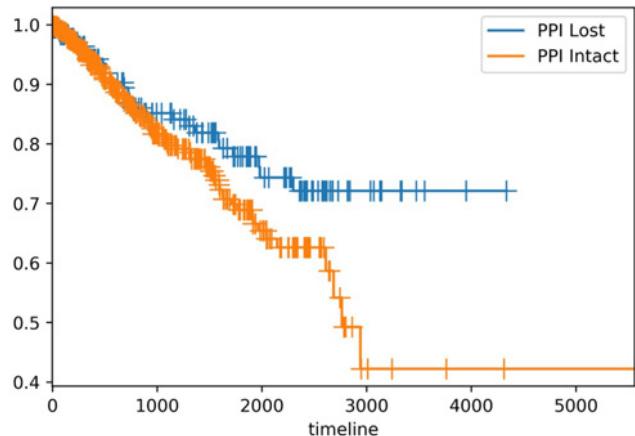
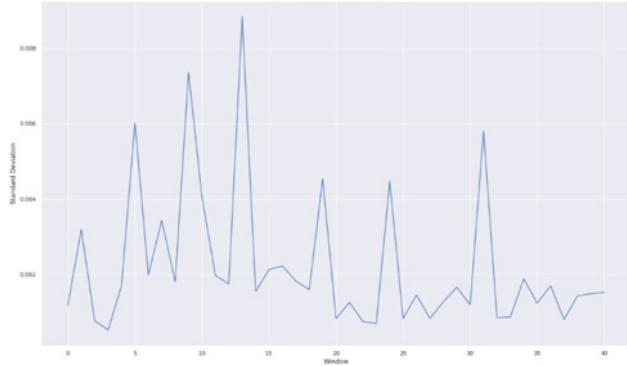
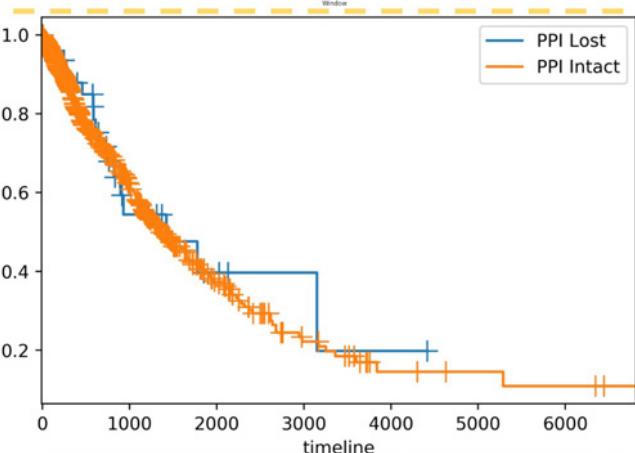


Kidney
NM_018890 and NM_004573
RAC1 - PLCB2
PDB: 2FJU (Chains A and B)



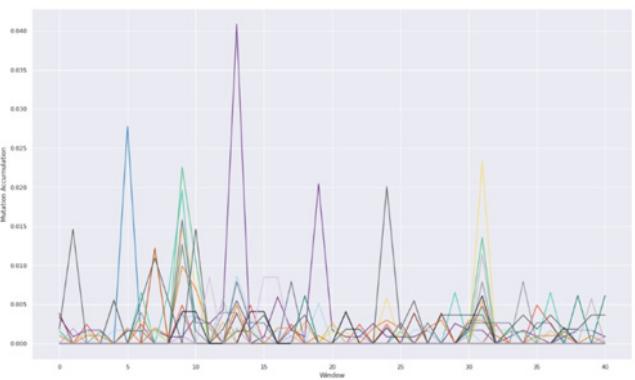
Kidney

NM_003348 and NM_021009
UBE2N - UBC
PDB: 6S53 (Chains E and F)

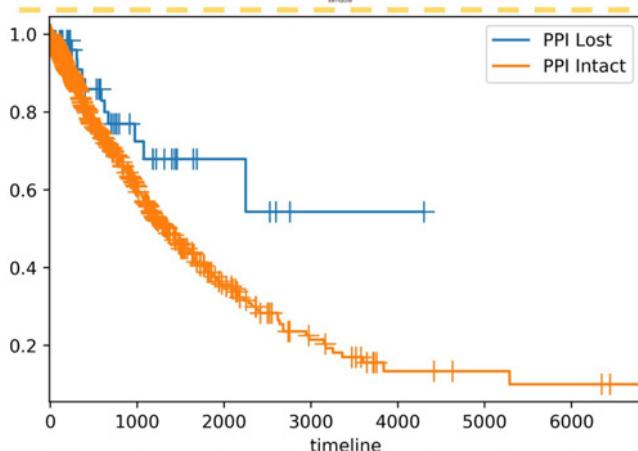
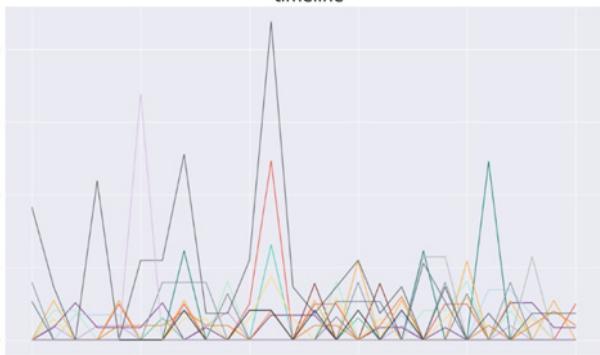
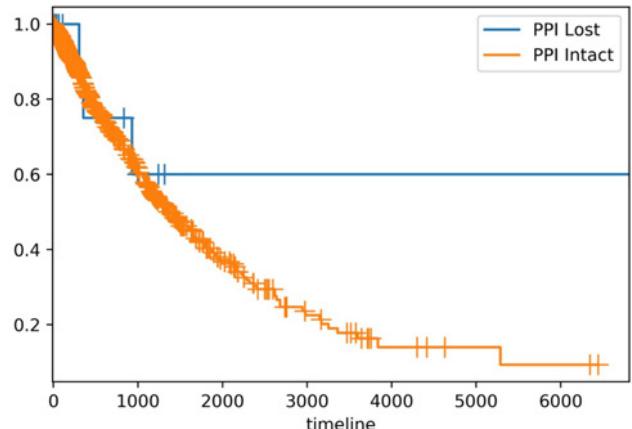


Lung

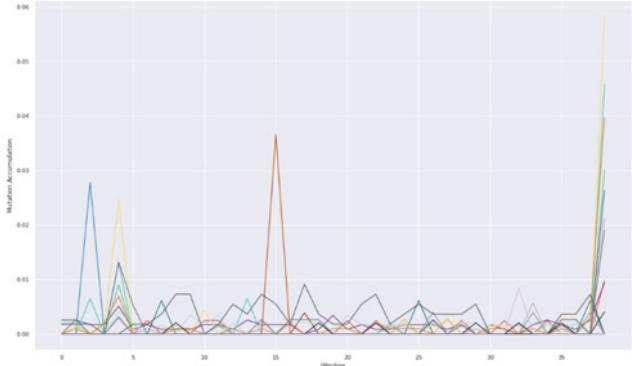
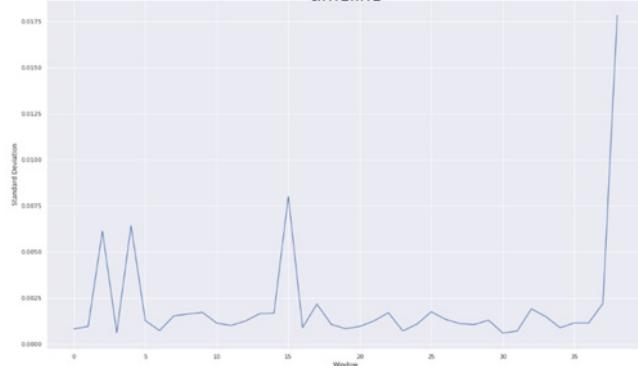
NM_001254 and NM_014225
CDC6 - PPP2R1A
PDB: 4I5L (Chains B and A)



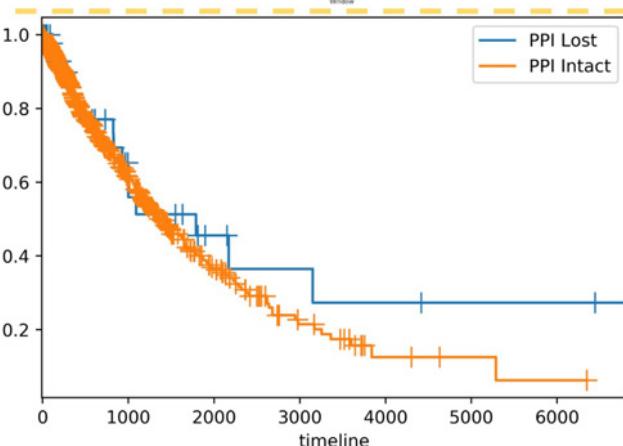
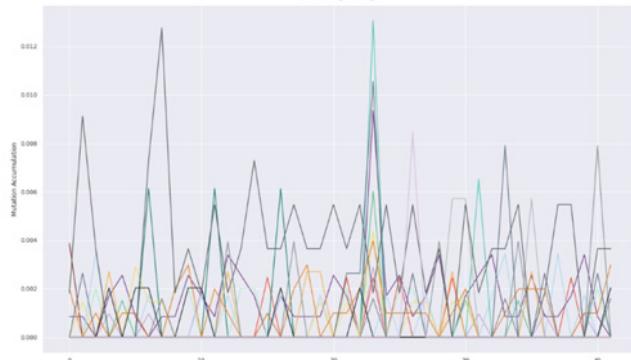
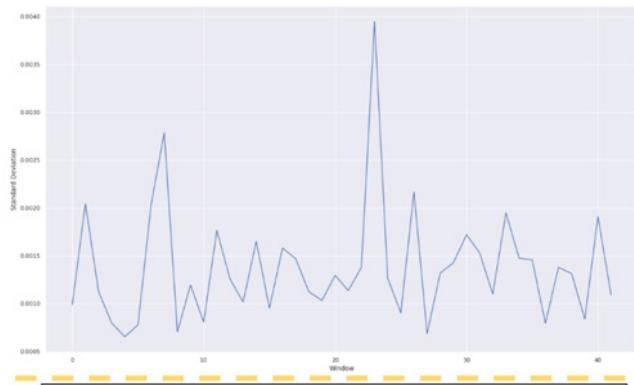
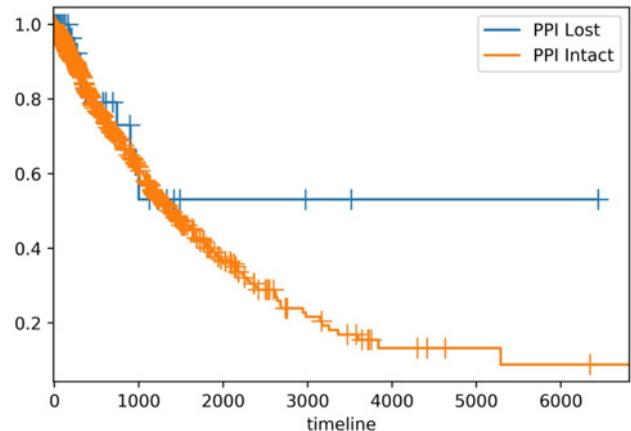
Lung
 NM_001240 and NM_001261
 CCNT1 - CDK9
 PDB: 6GZH (Chains B and A)



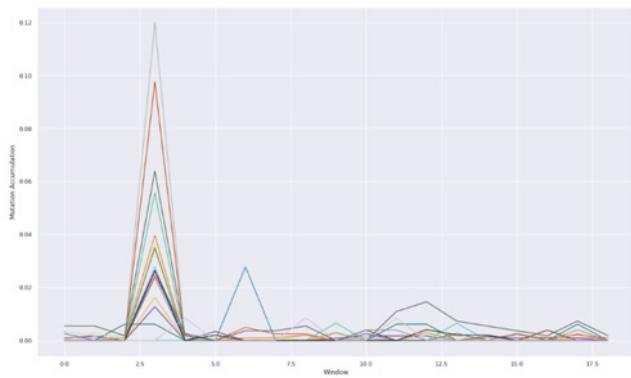
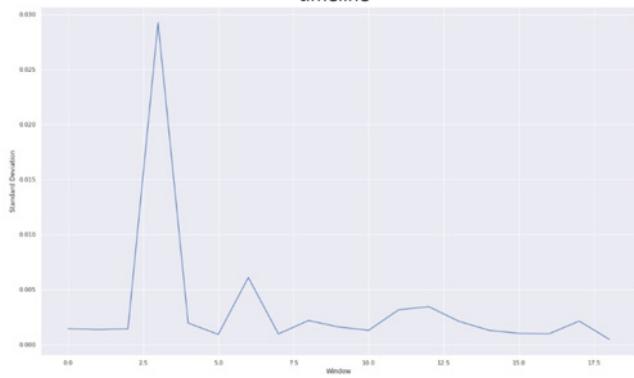
Lung
 NM_002486 and NM_007362
 NCBP1-NCBP2
 PDB: 1H2T (Chains C and Z)



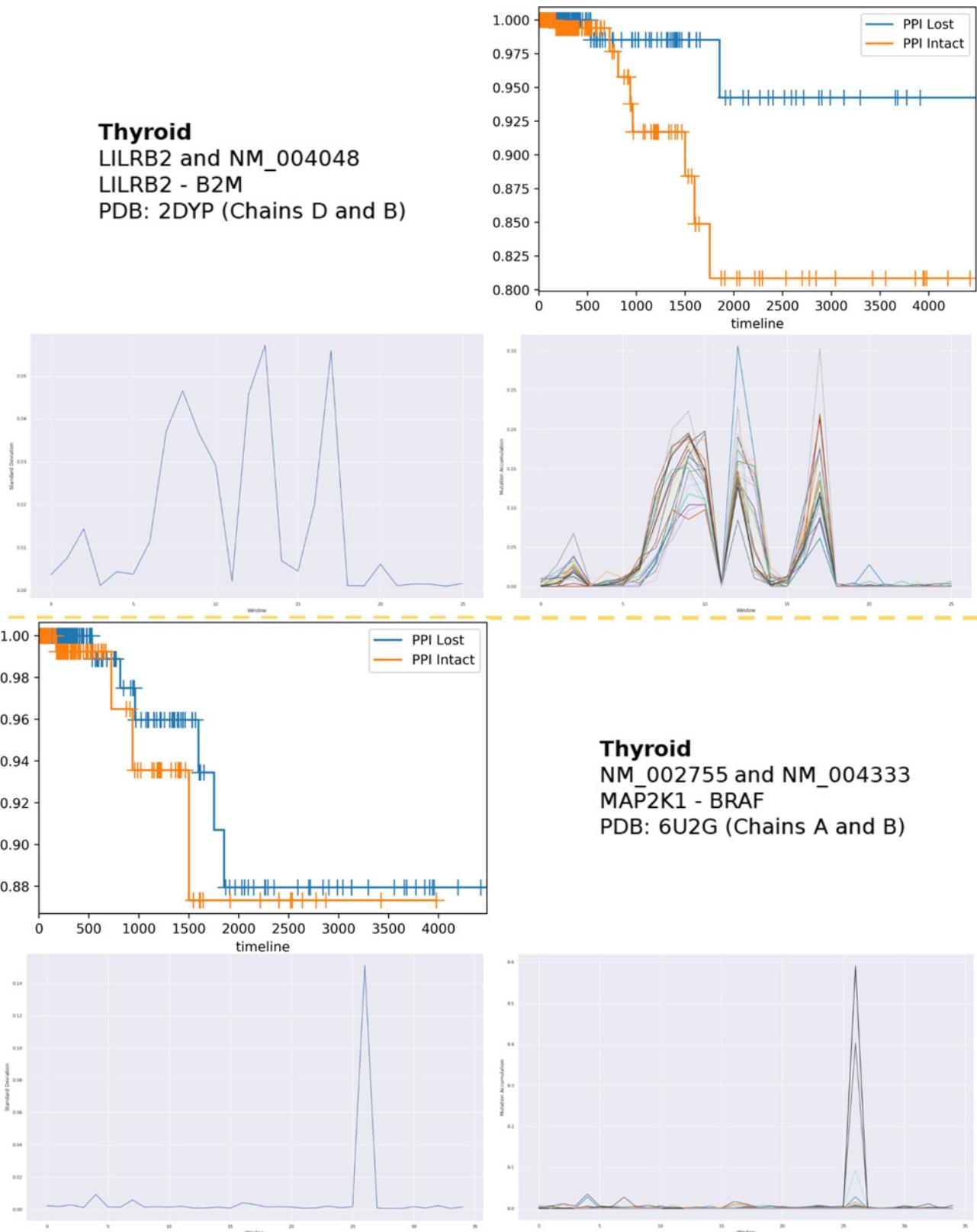
Lung
 NM_002019 and NM_001025366
 FLT1 - VEGFA
 PDB: 5T89 (Chains X and V)



Lung
 NM_080703 and NM_015949
 BAG6 - GET4
 PDB: 6AU8 (Chains C and A)

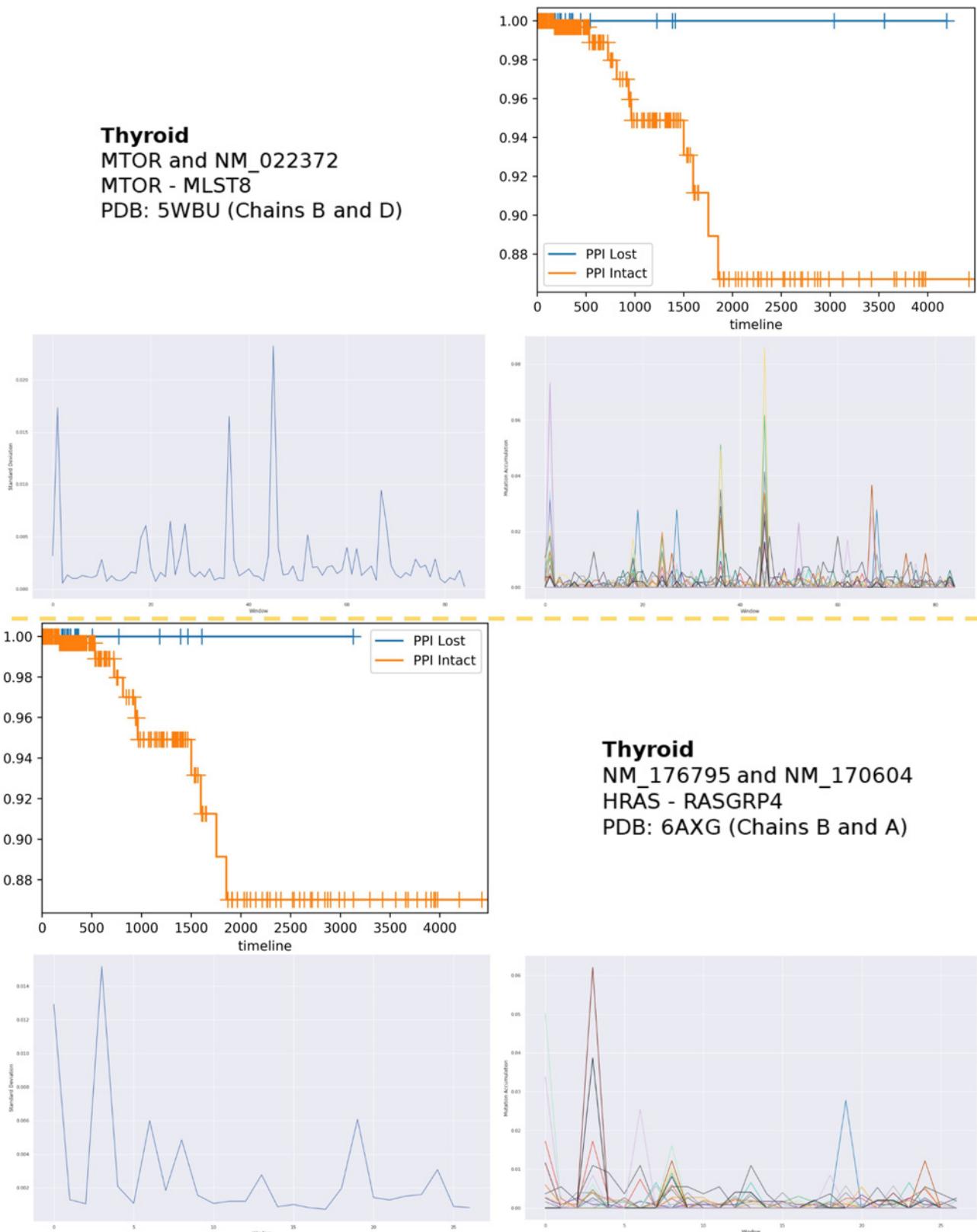


Thyroid
 LILRB2 and NM_004048
 LILRB2 - B2M
 PDB: 2DYP (Chains D and B)



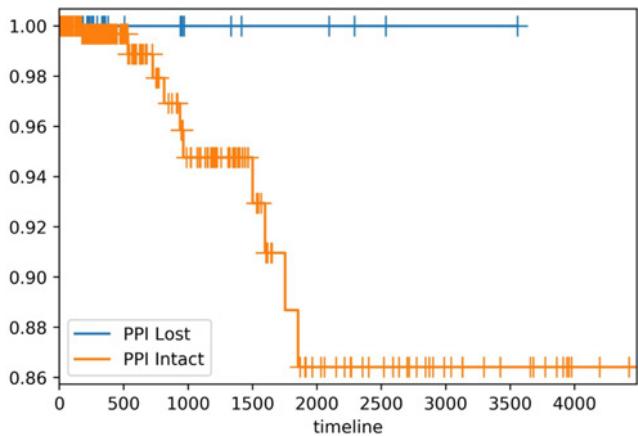
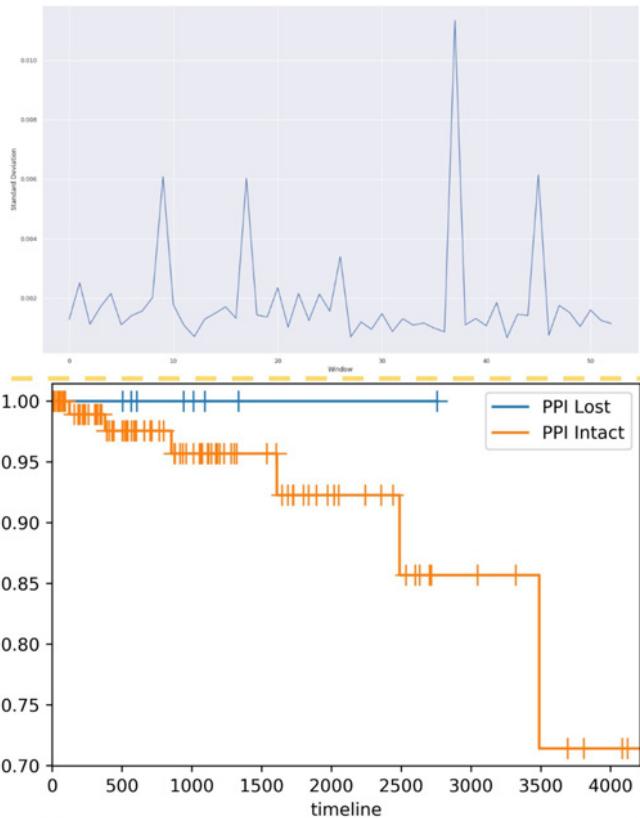
Thyroid
 NM_002755 and NM_004333
 MAP2K1 - BRAF
 PDB: 6U2G (Chains A and B)

Thyroid
 MTOR and NM_022372
 MTOR - MLST8
 PDB: 5WBU (Chains B and D)

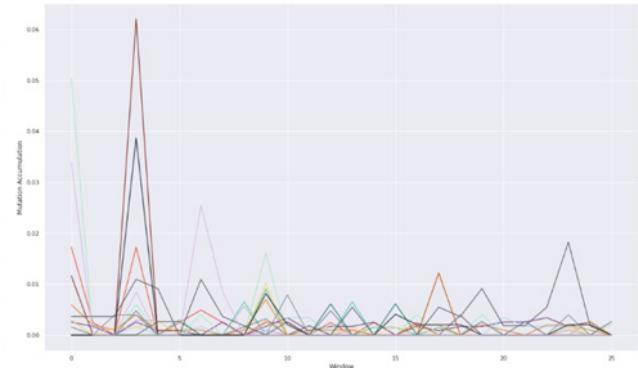
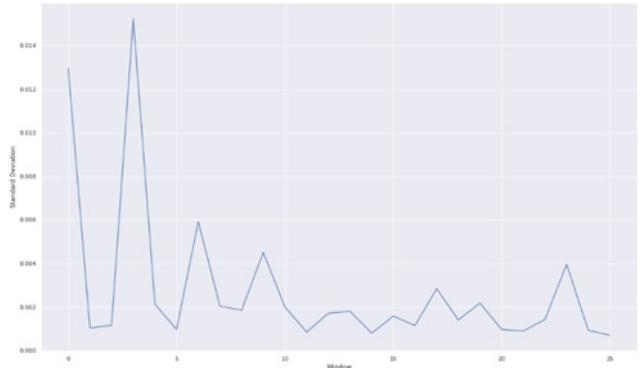


Thyroid
 NM_176795 and NM_170604
 HRAS - RASGRP4
 PDB: 6AXG (Chains B and A)

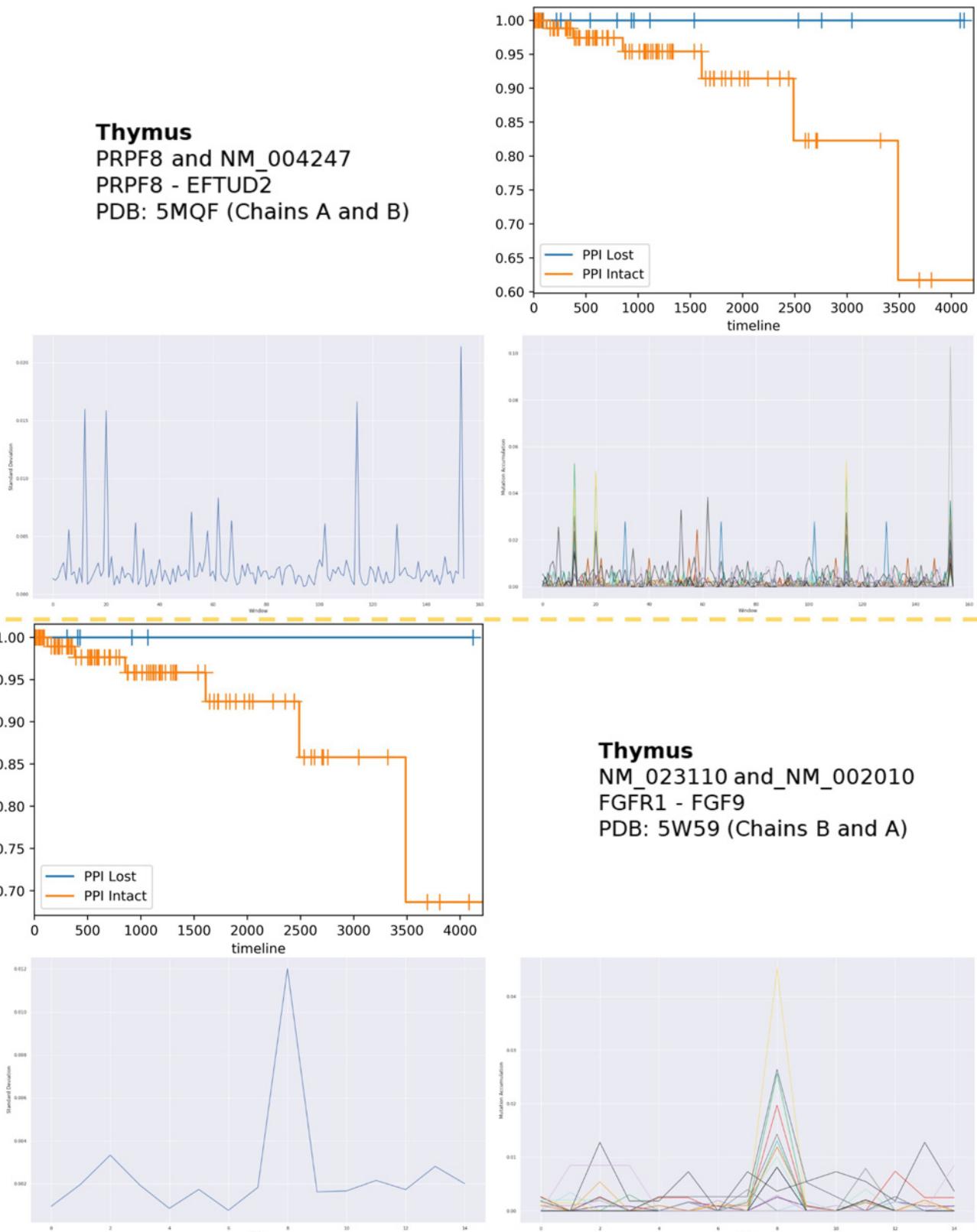
Thyroid
 NM_020975 and NM_001495
 RET - GFRA2
 PDB: 6GL7 (Chains F and D)



Thymus
 NM_176795 and NM_002890
 HRAS - RASA1
 PDB: 1WQ1 (Chains R and G)

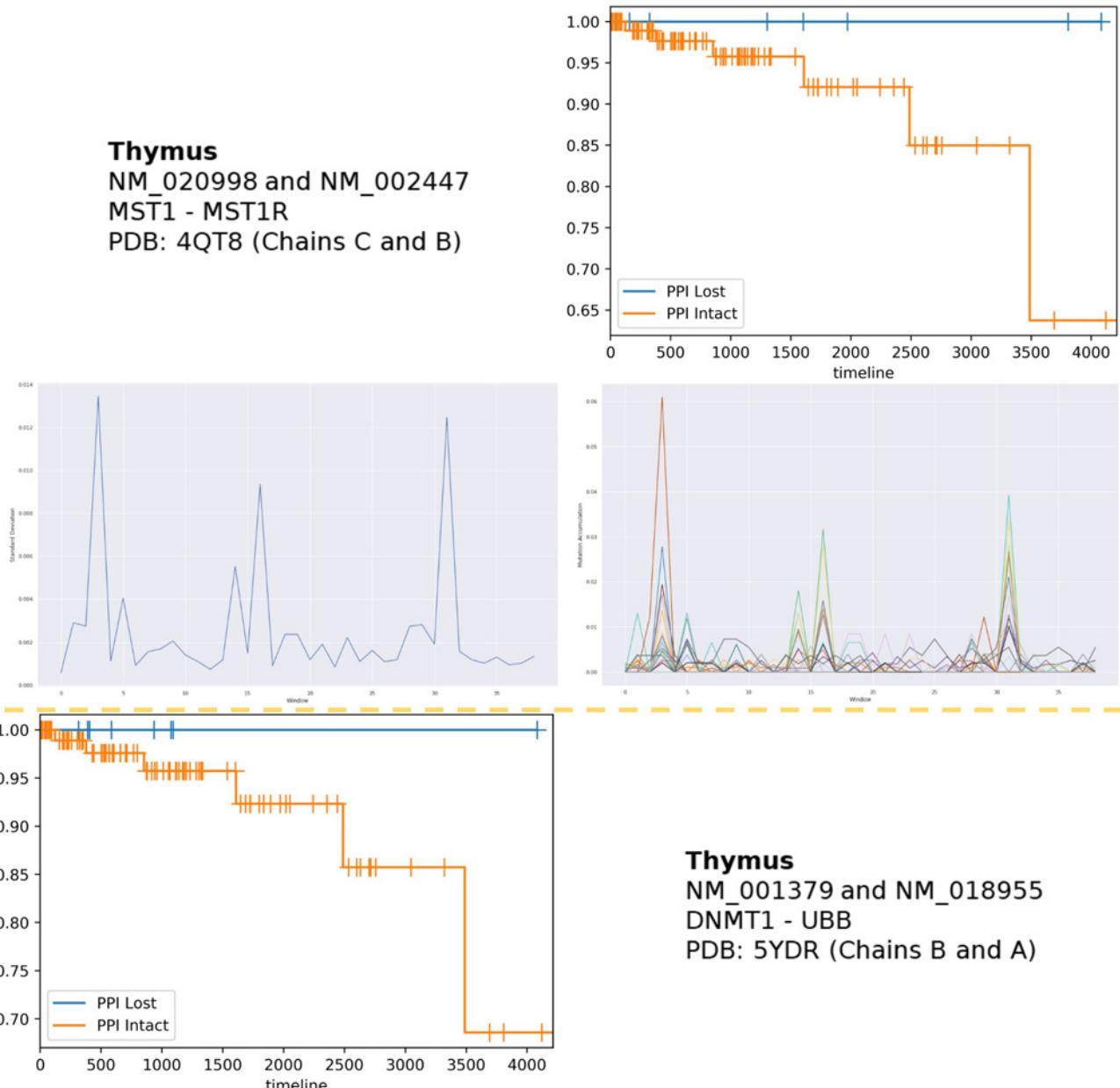


Thymus
 PRPF8 and NM_004247
 PRPF8 - EFTUD2
 PDB: 5MQF (Chains A and B)



Thymus
 NM_023110 and_NM_002010
 FGFR1 - FGF9
 PDB: 5W59 (Chains B and A)

Thymus
 NM_020998 and NM_002447
 MST1 - MST1R
 PDB: 4QT8 (Chains C and B)



Thymus
 NM_001379 and NM_018955
 DNMT1 - UBB
 PDB: 5YDR (Chains B and A)

