



Institute of
High Performance
Computing

IHPC



! "#\$%& '\$" (

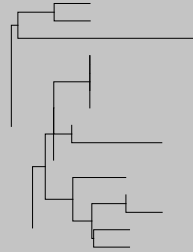




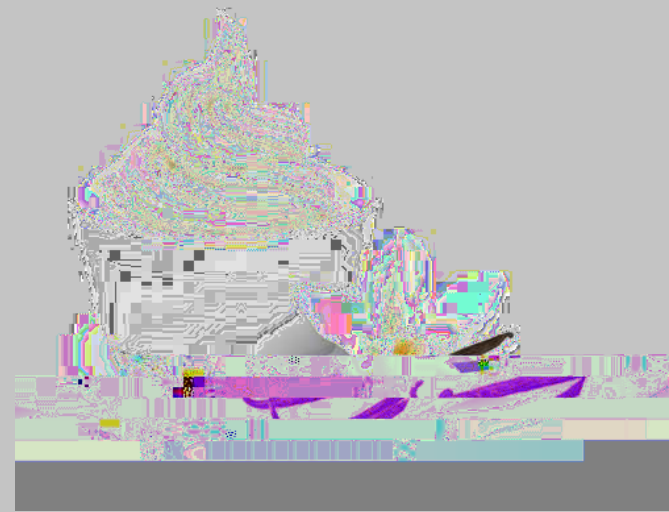
!"#\$%&%



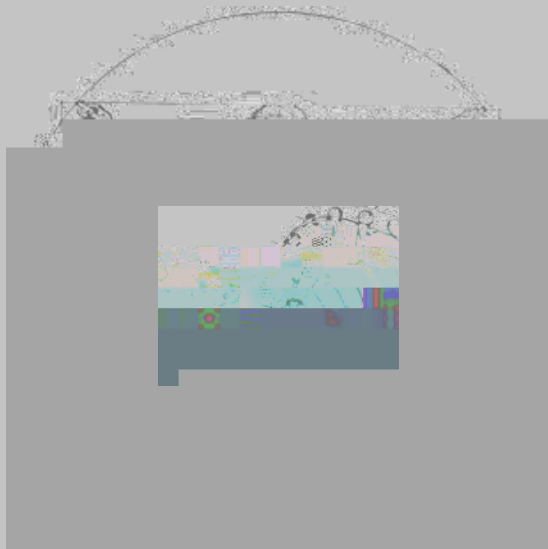
!"#\$%& \$" (



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4\$5 -6* . -#" -1"(6



...AGCAAAAGCAGGGGAAAACAAAAGCAACAAAAATGAAGGC
AATACTAGTAGTTCTGCTATATACATTTGCAACCGCAAATGCA
GACACATTATGTATAGGTTATCATGCGAACAAT ACAGACA
CTGTAGACACAGTACTAGAAAAAGTAAACAGTAACACACTC
TGTTAACCTTCTAGAAGACAAGCATAACGGGAAACTATGCA...

/#() \$01*2 - +&13

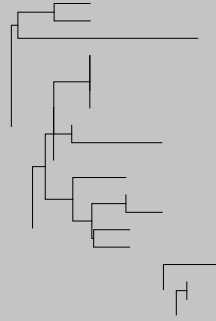




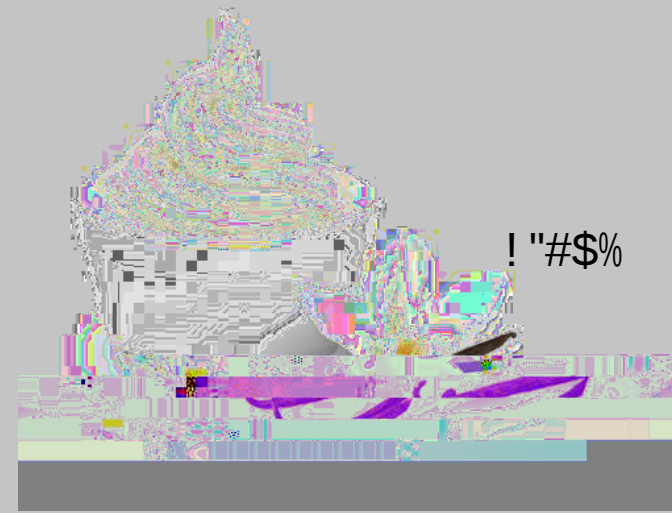
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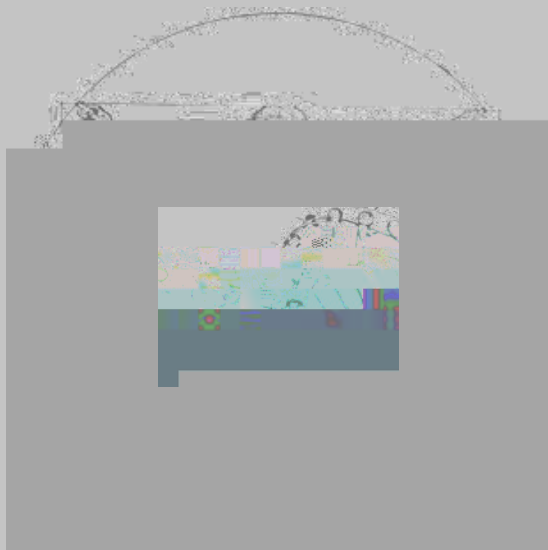


' (() * + , - . (# %



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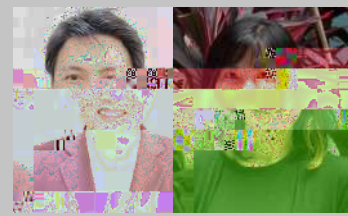


...AGCAAAAGCAGGGGAAAACAAAAGCAACAAAAATGAAGGC
AATACTAGTAGTTCTGCTATATACATTTGCAACCGCAAATGCA
GACACATTATGTATAGGTTATCATGCGAACAAT ACAGACA
CTGTAGACACAGTACTAGAAAAAGAAATGTAACAGTAACACACTC
TGTAAACCTTCTAGAAGACAAGCATAACGGGAAACTATGCA...

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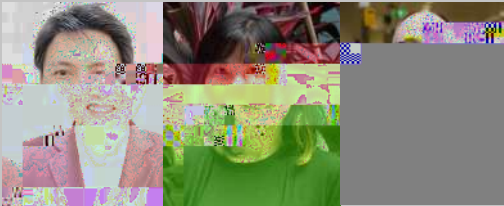
Computational prediction of protein allergenicity potential: AllerCatPro



! "#\$%&' (\$)\$



AllerCatPro predicts if a protein is similar to known allergens



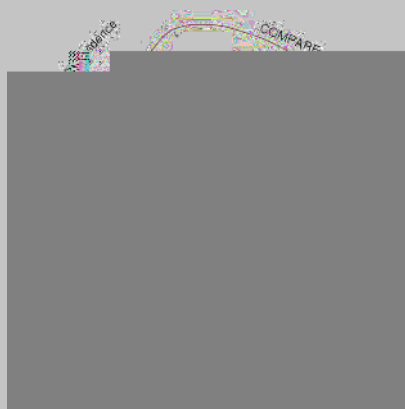
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*" =+ '**-19-)(/+\$1"&-()4+')0+: ;>+'%&"(# #%) -+ '**-19-)4?

What's new in AllerCatPro

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Two of the most consumed fish in Singapore



Allergome

AllergenOnline

	%identity,	%identity,	#pos	#neg	#pos	#neg
100	100	100	100	100	100	100
95	95	95	95	95	95	95
90	90	90	90	90	90	90
85	85	85	85	85	85	85
80	80	80	80	80	80	80
75	75	75	75	75	75	75
70	70	70	70	70	70	70
65	65	65	65	65	65	65
60	60	60	60	60	60	60
55	55	55	55	55	55	55
50	50	50	50	50	50	50
45	45	45	45	45	45	45
40	40	40	40	40	40	40
35	35	35	35	35	35	35
30	30	30	30	30	30	30
25	25	25	25	25	25	25
20	20	20	20	20	20	20
15	15	15	15	15	15	15
10	10	10	10	10	10	10
5	5	5	5	5	5	5
0	0	0	0	0	0	0

Created in 2022

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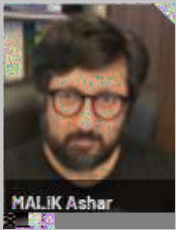
Compiled all known fish allergens from the four most common and well-known allergen databases (n=79)



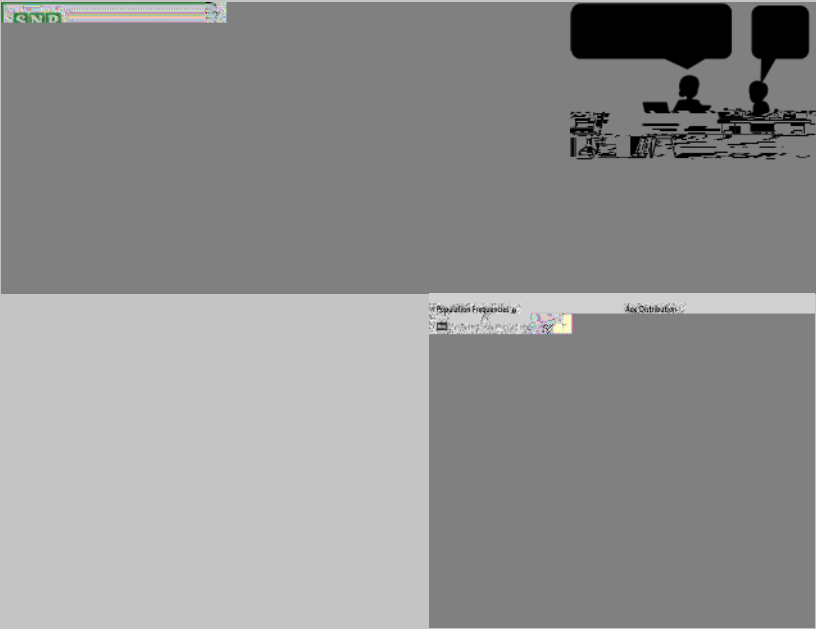
! "\$%&'\$" (



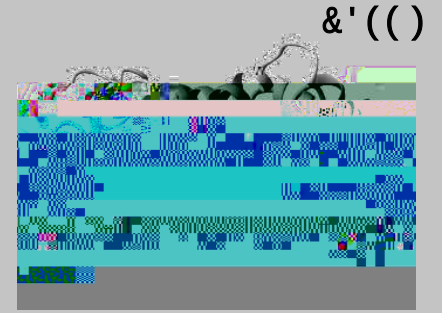
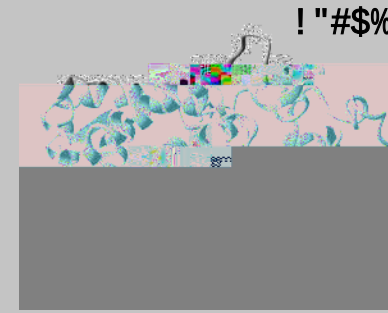
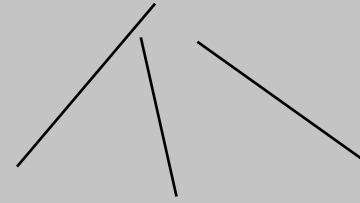
! " # \$ % & ' () * + , - . / 0 1 ' * ' 2 1 2 3 0 / * 4 . % 0 . 1 3 5 *
0 1 * . * , % 6 3 2 0 1 * 5 3 % & / 3 & % . - * / 6 1 3 2 7 3



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J%L#%&;%J
→



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! " # \$ % & ' () * + 0 . / 3 / 0 , . * & 4 5 * 0 , 4 5

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5\$1-1"(6% "6 19& : (: \$,-1"(6 19-1 0(\$,) -++&01)#\$8 #&%:(6%& 9&60& -,,(<"68 5& 1(%1#-1"+3 <9(
%9(\$,) 8&1 19"%)#\$8ZY

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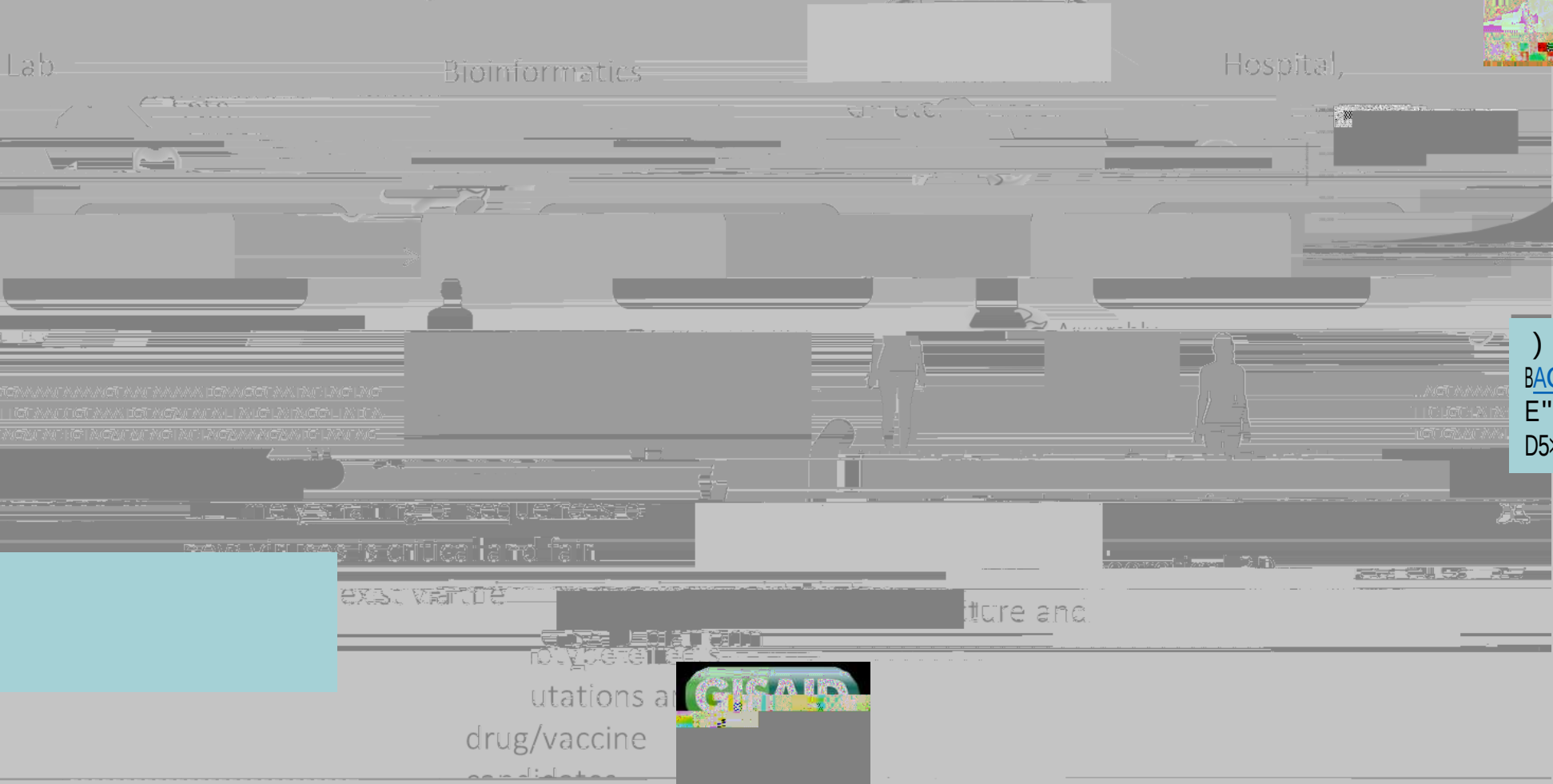
D

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Example COVID-19: data + analysis = impact

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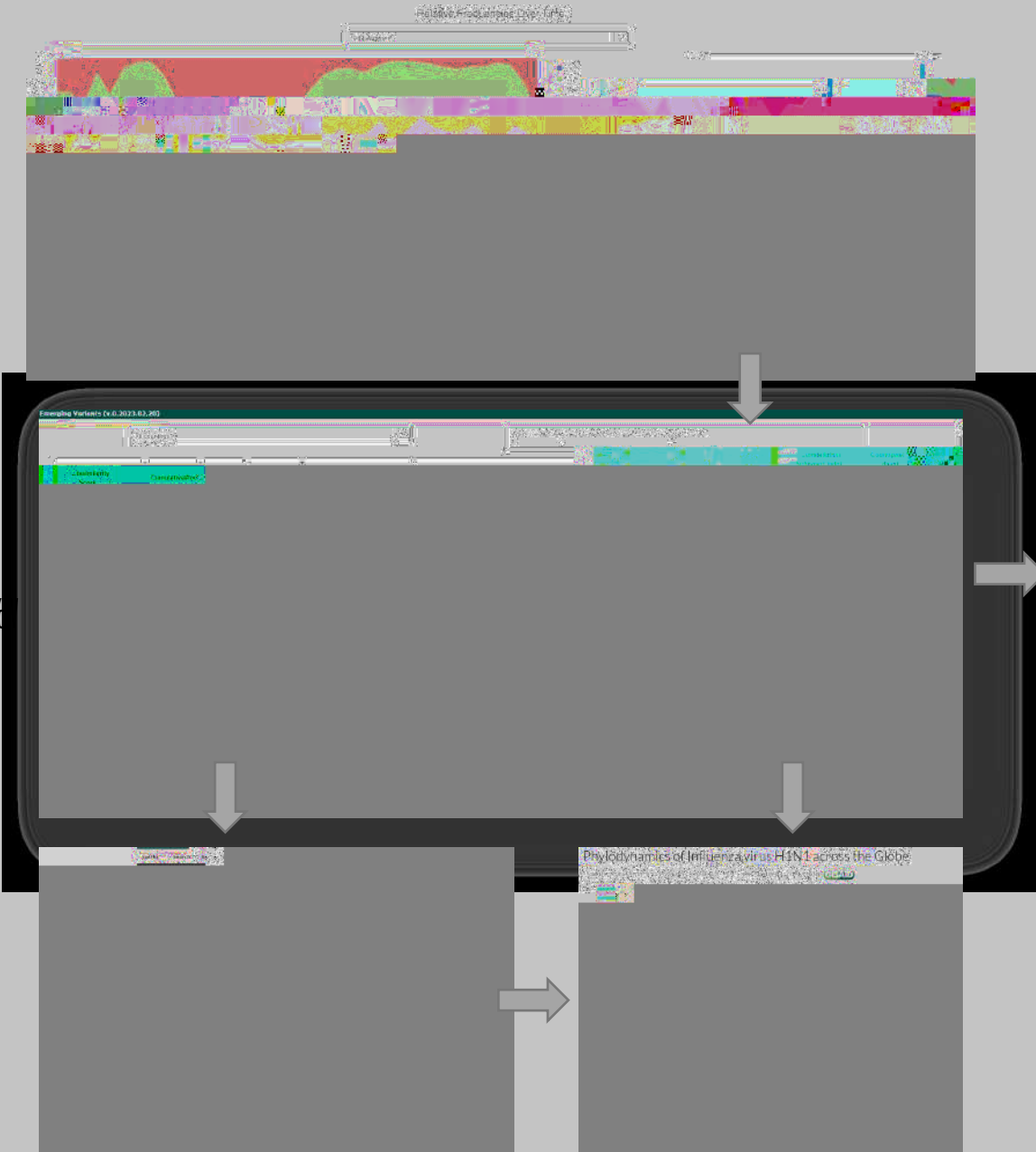
A,-)&



J5"68*!-#"-61
U\$6"^\$&*%&1*(+*5\$1-1"(6%



G6)".")\$-,*5\$1-1"(6



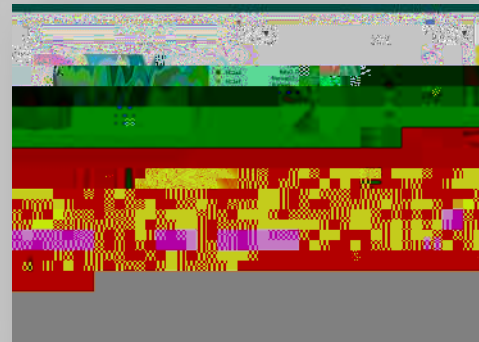
!")) - /&-0+*-M-*4+()+N0,20@P4+
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&61#3*
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2&1*(+*
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2&1*(+*
&61#"&%*
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%\$55-#3



O&<H*"6*:#&: -#-1"(6a

Upload input file

one sequence file is required

3/41/,350.673/41/873/9

sampleID	age	vaccine_status	patient_status	drug_foldchange	HI_titer
sample1	45		ICU	0.2	256
sample2	38		ICU	0.7	128
sample3	30			1.3	256
sample4	27		ICU	1.5	32
sample5	57		ICU		128
sample6	67			1.8	

! 7%&#*\$: , (-) *%&^\$&60"68*+-%1-*+",&%*-6)*5&1-) -1-*+",&%U"6*1%._0%._`%(6*+(#5-1%W*"6*19&*, -6)"68*
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U4&=6+#\$2&'&-#'^\$! "#\$%&'()*+,-./*0*1.0#2!2+ / 345%642786429:

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Enrichment Analysis

Export to ExcelShow more

Enrichment Analysis

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+&"1*2.(5/68/6%1&"(3*%&0(#. (6%&"(%6@@/2&0(A&1*0*1*Q

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] ,3%+'A%&-\$0%'4; ,/1/,\$)'4KK%; ,J'2+7,%/&'4; ;#0#E4,/7&\J,4:/E/,\$\K#&; ,/7&D	O^	M^
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7 1 ' ' ') . - \$ E .) = \$ Y . (5 (* & ' (* 5 \$ & * 2 \$
4 1 K = (' ' (* 5 \$ + & K) . & ') . (# - \$) E \$ - # P 1 # * / # \$
2 & ' & \$) * \$ H " (/ " ' ' ' # \$ & * & + 9 - (- \$ (- \$ K & - # 2 \$



Institute of

