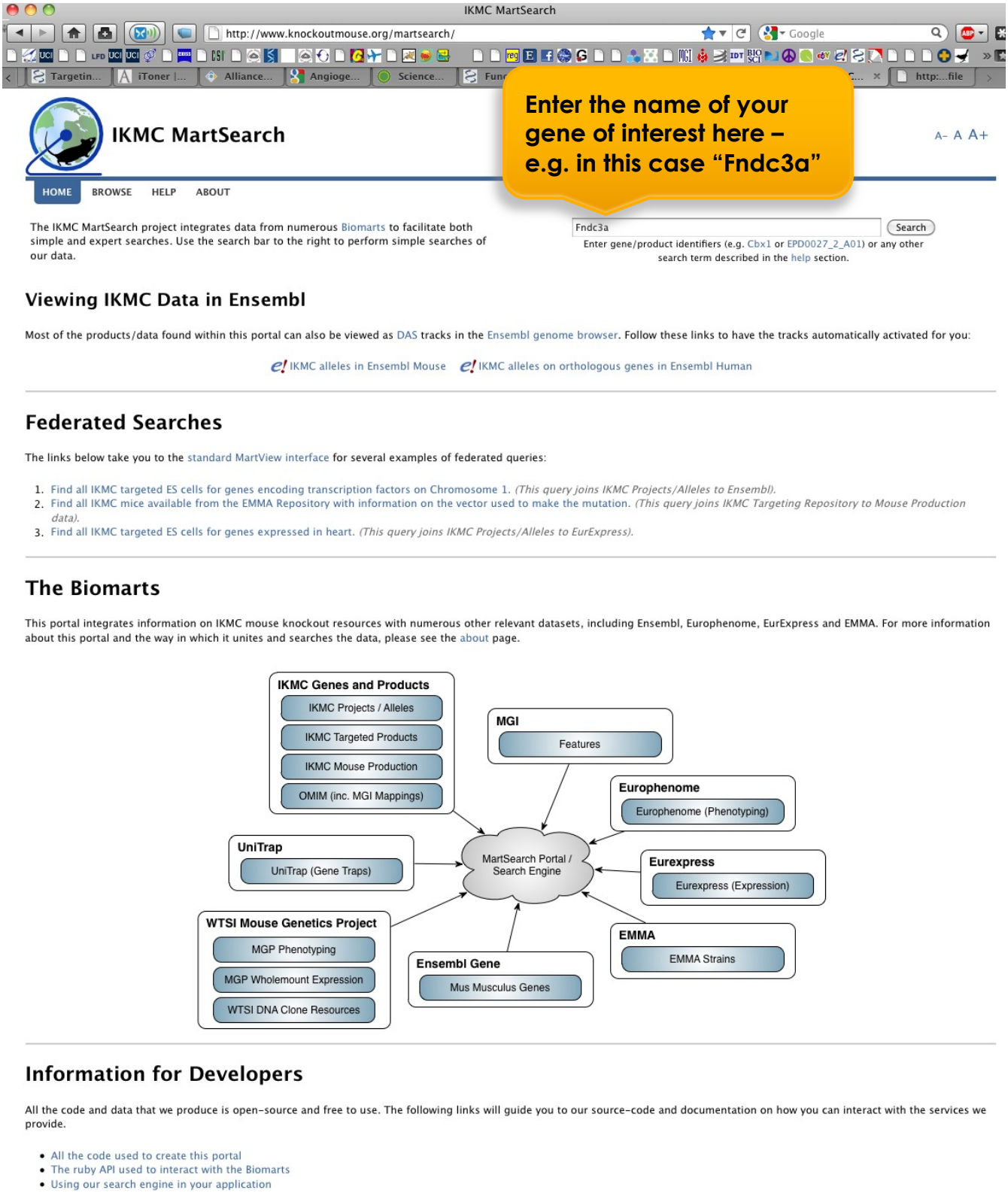
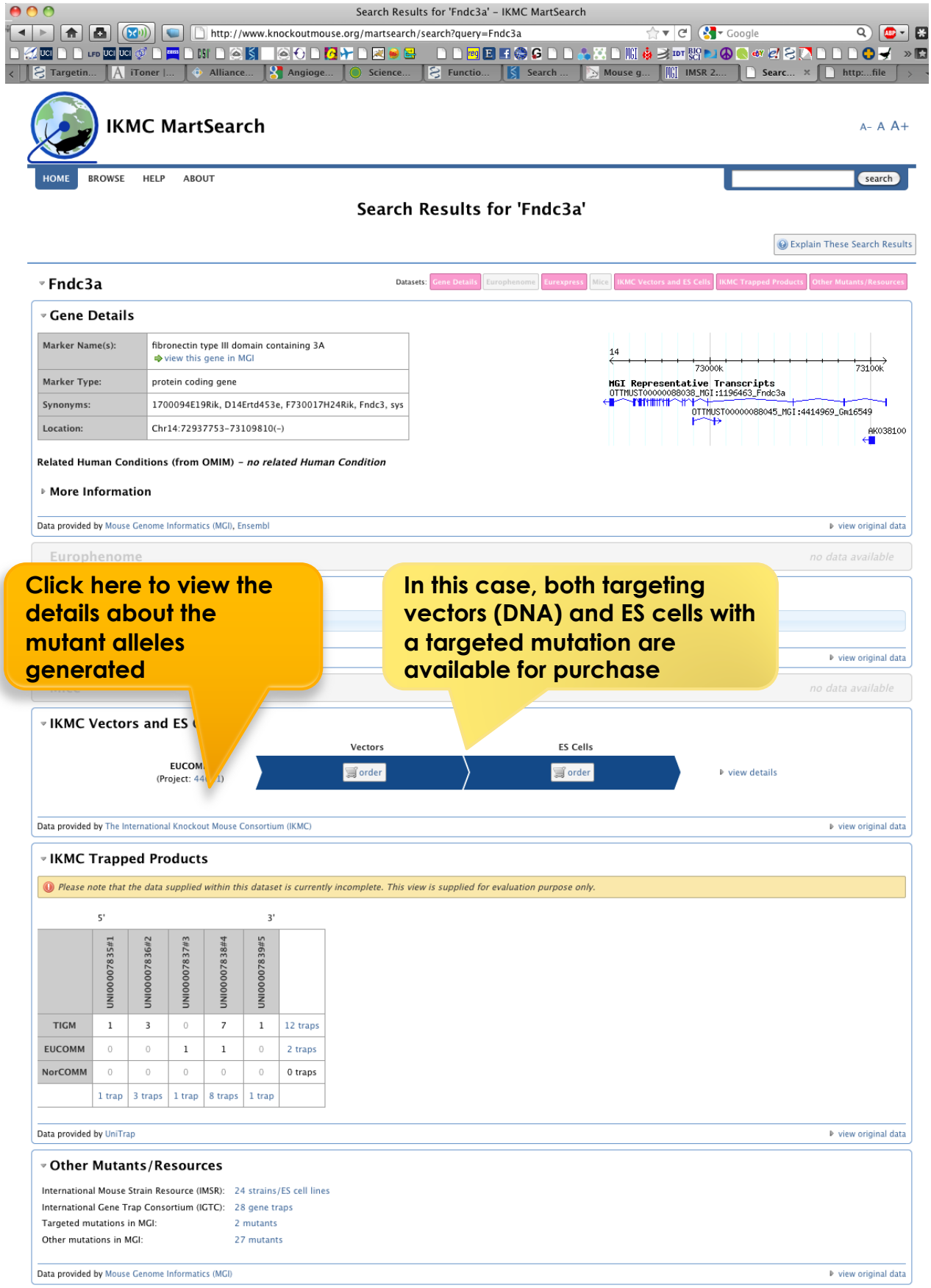
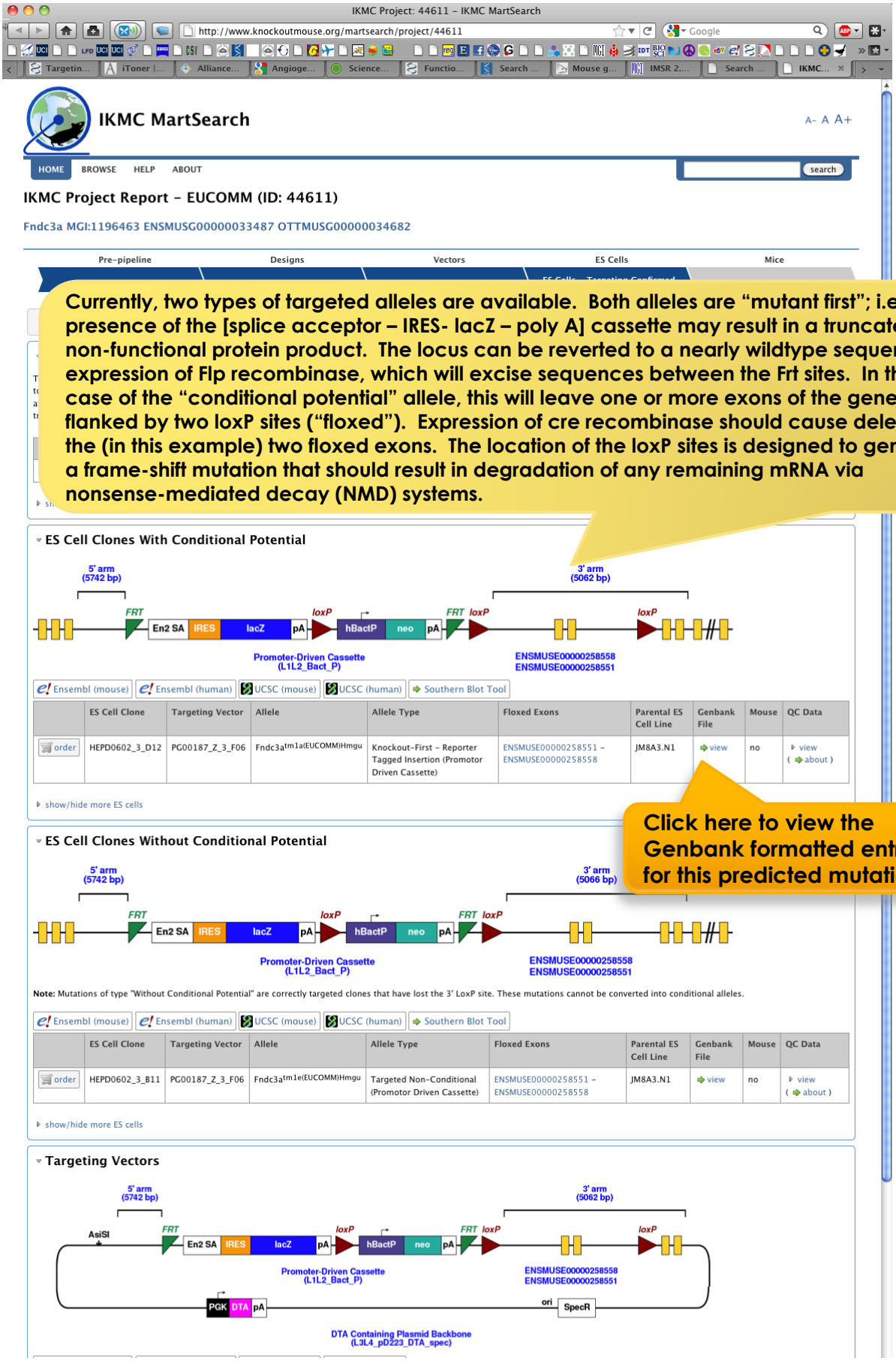
A UCI TMF TUTORIAL: FINDING TARGETING VECTORS AND DOWNLOADING SEQUENCE FOR A MUTANT ALLELE OF YOUR GENE OF INTEREST VIA THE INTERNATIONAL KNOCKOUT MOUSE CONSORTIUM (IKMC) MARTSEARCH WEB PAGE



The results page



The Project Report page – more details of the mutant alleles



Details of the predicted mutant allele in GenBank format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ACCESSION   unknown
DBSOURCE    accession design_id=193256
COMMENT     cassette : L1L2_Bact_P
COMMENT     design_id : 193256
FEATURES             Location/Qualifiers
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                     /label=G5
                     /type="G5"
                     /note="G5"
     primer_bind     15002..15051
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                     /type="U5"
                     /note="U5"
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                     /label=ENSMUSE00000258582
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     exon            5368..5637
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     misc_feature    16036..16038
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     misc_feature    22123..22133
                     /label=B2 site
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                     /type="D5"
                     /note="D5"
```

The information is in GenBank format. Before we can view and annotate this data using Lasergene's "SeqBuilder" application, we need to reformat the information

Copy and paste the information from your browser into a suitable text editor application – e.g. MS-Word


```
LOCUS       allele_193256_ENSMUSE00000258558-ENSMUSE00000258551_L1L2_Bact_P       38157 bp    dna     linear   UNK
ACCESSION   unknown
DBSOURCE    accession design_id=193256
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COMMENT     design_id : 193256
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     primer_bind     complement(9309..9358)
                     /label=G5
                     /type="G5"
                     /note="G5"
     primer_bind     15002..15051
                     /label=U5
                     /type="U5"
                     /note="U5"
     exon            221..458
                     /db_xref="ens:ENSMUSE00000258582"
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                     /note="GF3"
     LRPCR_primer    8795..8821
                     /type="GF4"
                     /label=GF4
                     /note="GF4"
     misc_feature    9309..15051
                     /label=5 arm
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     misc_feature    complement(15079..15091)
                     /label=R1 Gateway
                     /note="R1 Gateway"
     misc_feature    complement(15079..15091)
                     /label=B1 site
                     /note="B1 site"
     misc_feature    15092..15103
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     misc_feature    15116..15163
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                     /note="Frt"
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                     /label=En2 intron
                     /note="En2 intron"
     misc_feature    16036..16038
                     /label=SA
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                     /note="En2 exon"
     misc_feature    16252..16812
                     /label=ECMV IRES
                     /note="ECMV IRES"
     gene            16823..19869
                     /gene="lacZ"
                     /label=lacZ
                     /note="lacZ"
     misc_feature    19904..20159
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                     /note="SV40 pA"
     misc_feature    20163..20196
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     promoter        20222..20742
                     /label=human beta actin promoter
                     /note="human beta actin promoter"
     CDS             20768..21562
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     misc_feature    21760..22003
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     misc_feature    22074..22107
                     /label=loxP
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     misc_feature    22123..22133
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     misc_feature    22134..22146
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     misc_feature    22134..22146
                     /label=B2 site
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     primer_bind     complement(22174..22223)
                     /label=U3
                     /type="U3"
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     primer_bind     22979..23028
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     exon            22536..22693
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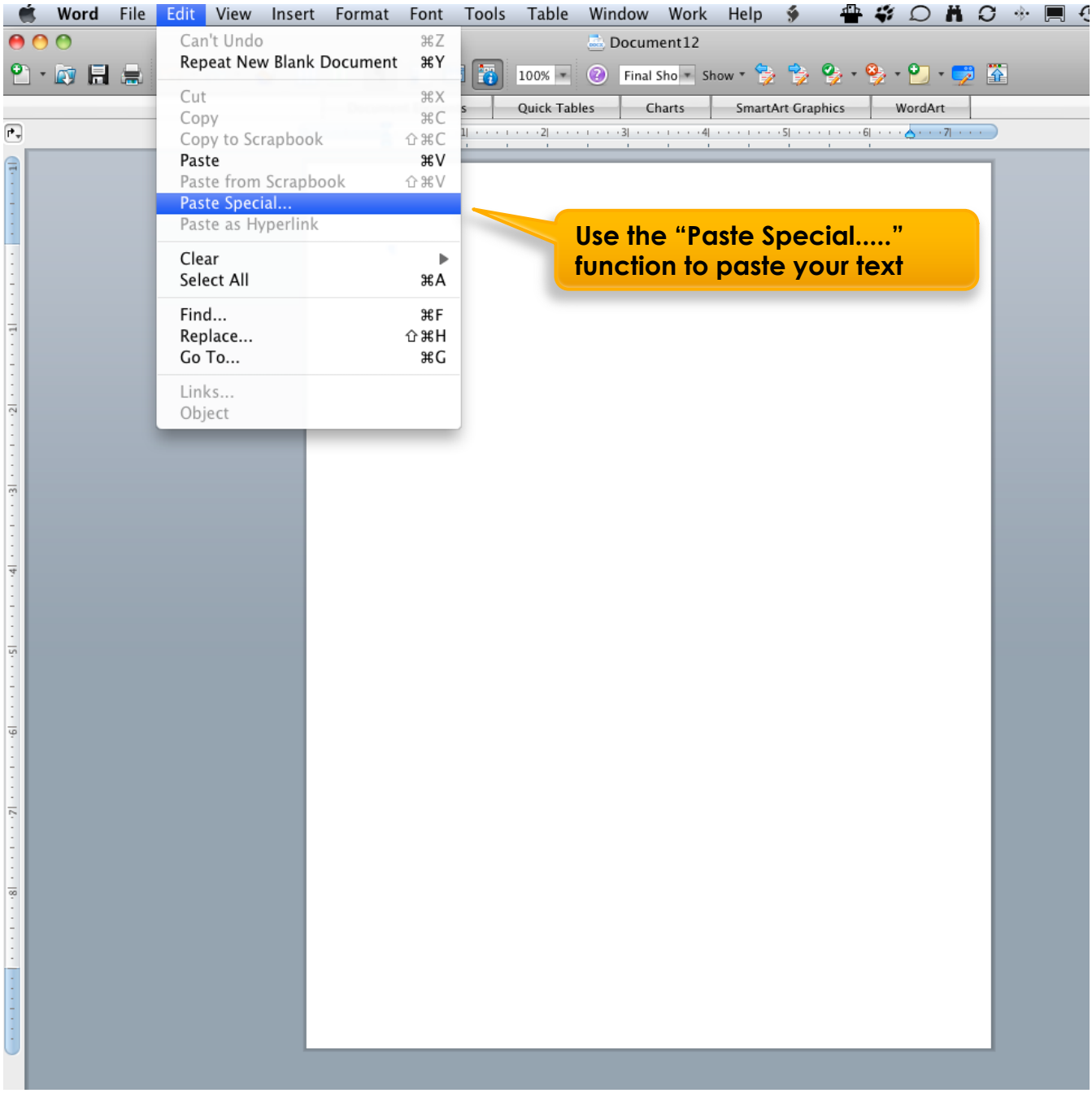
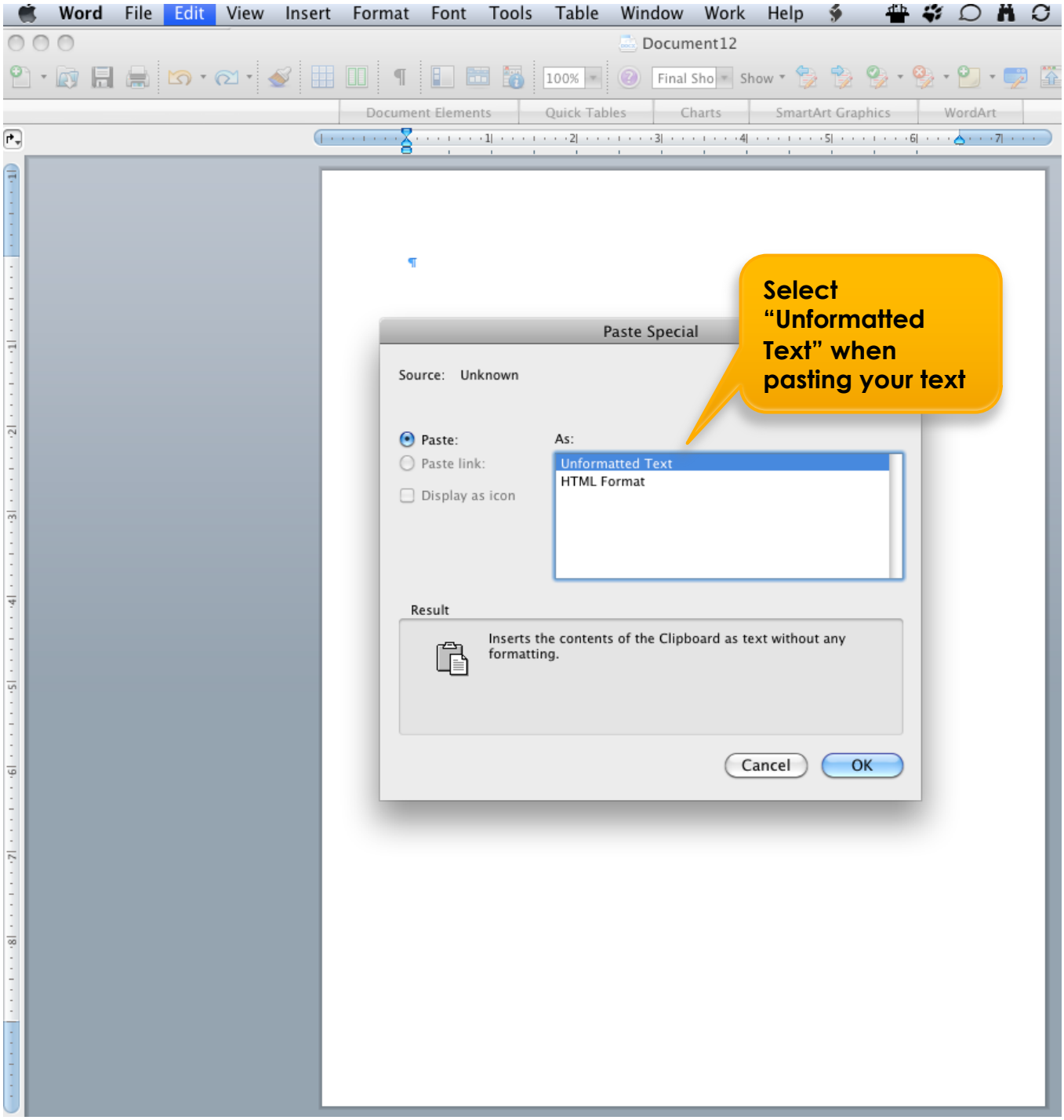
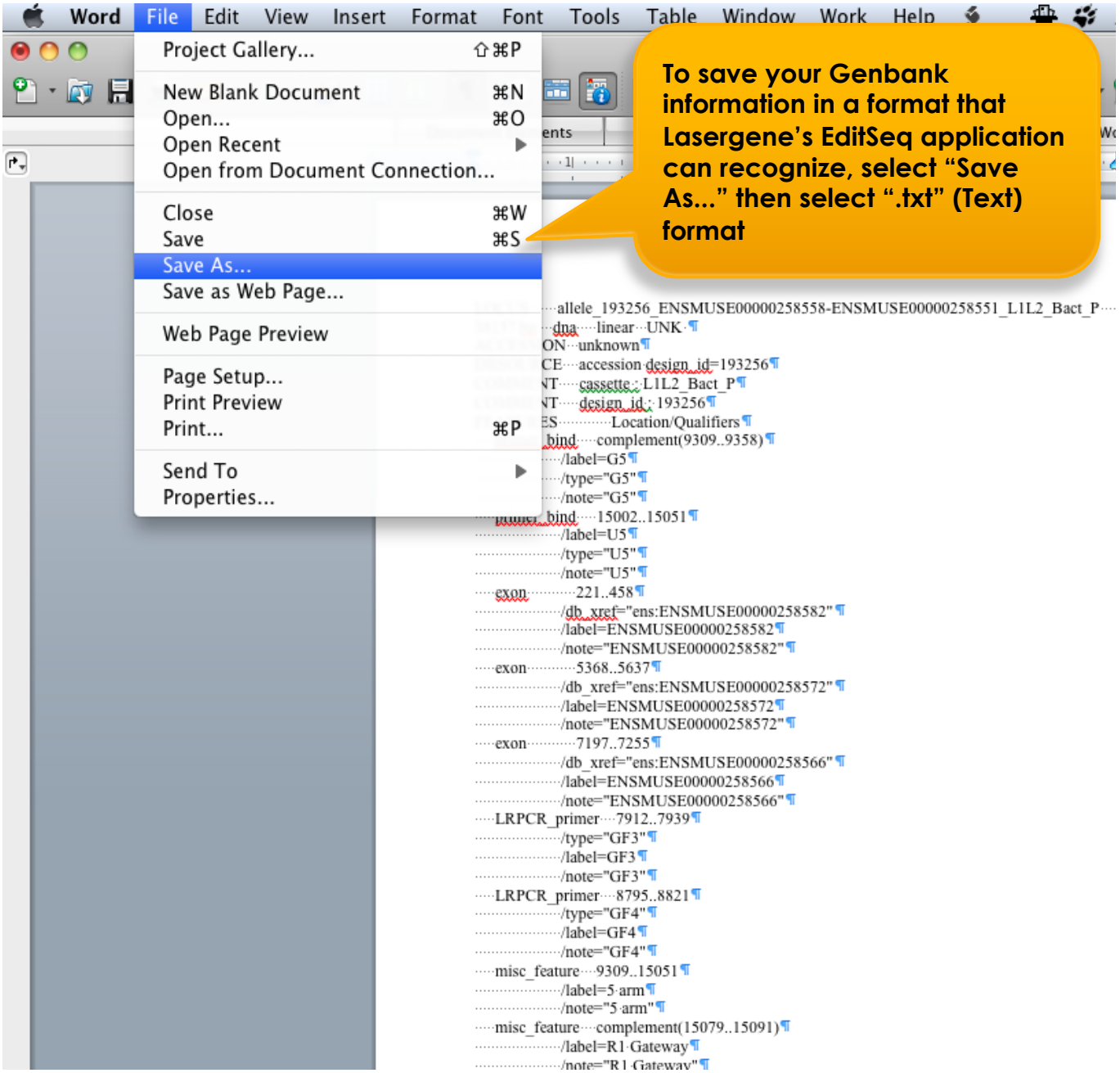
Copy and paste the information from your browser into a suitable text editor application – e.g. MS-Word



Copy and paste the information from your browser into a suitable text editor application – e.g. MS-Word



To enable the Lasergene suite's "EditSeq" application to import your data, save the GenBank-formatted information as a text (.txt) file



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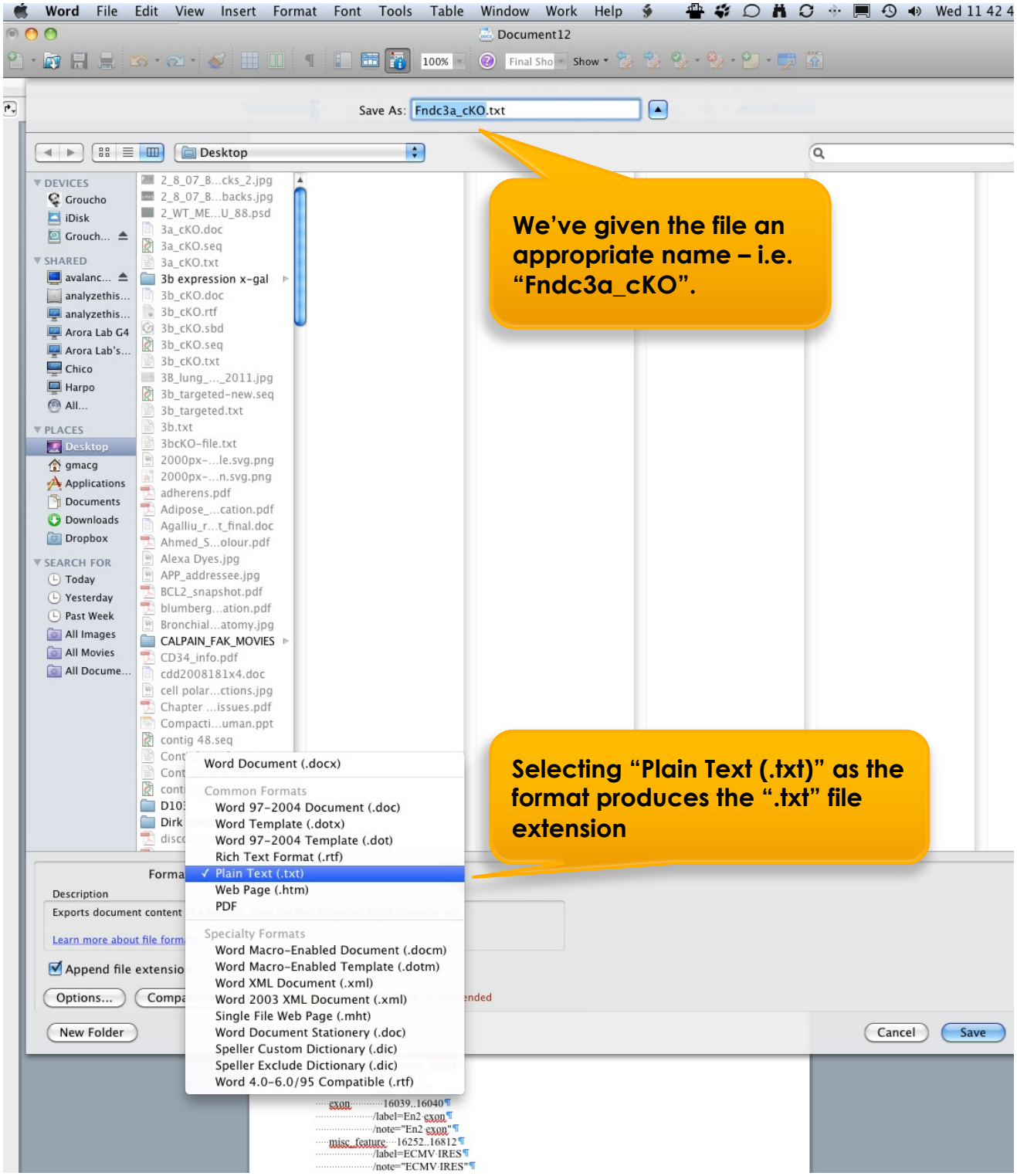
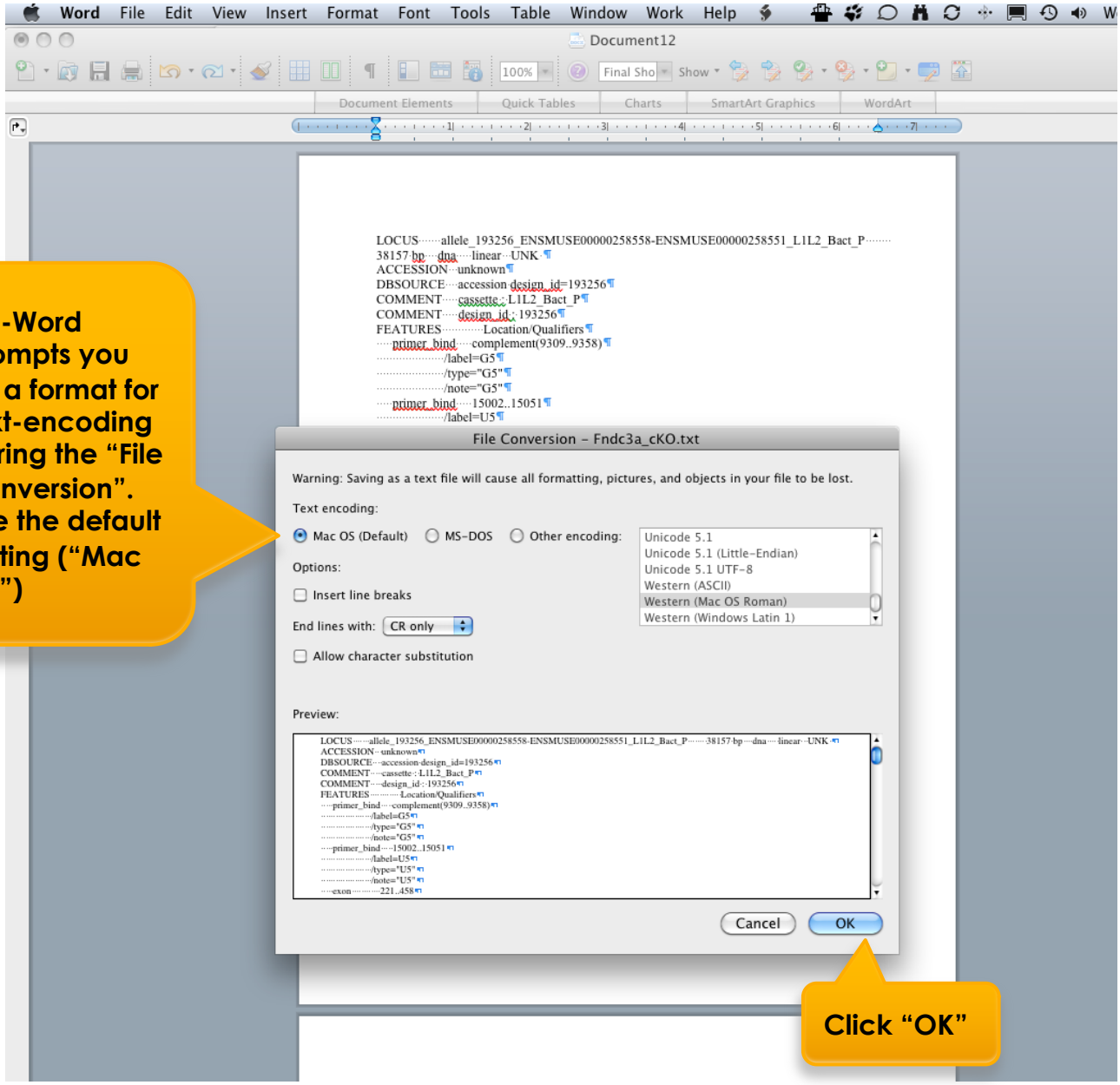
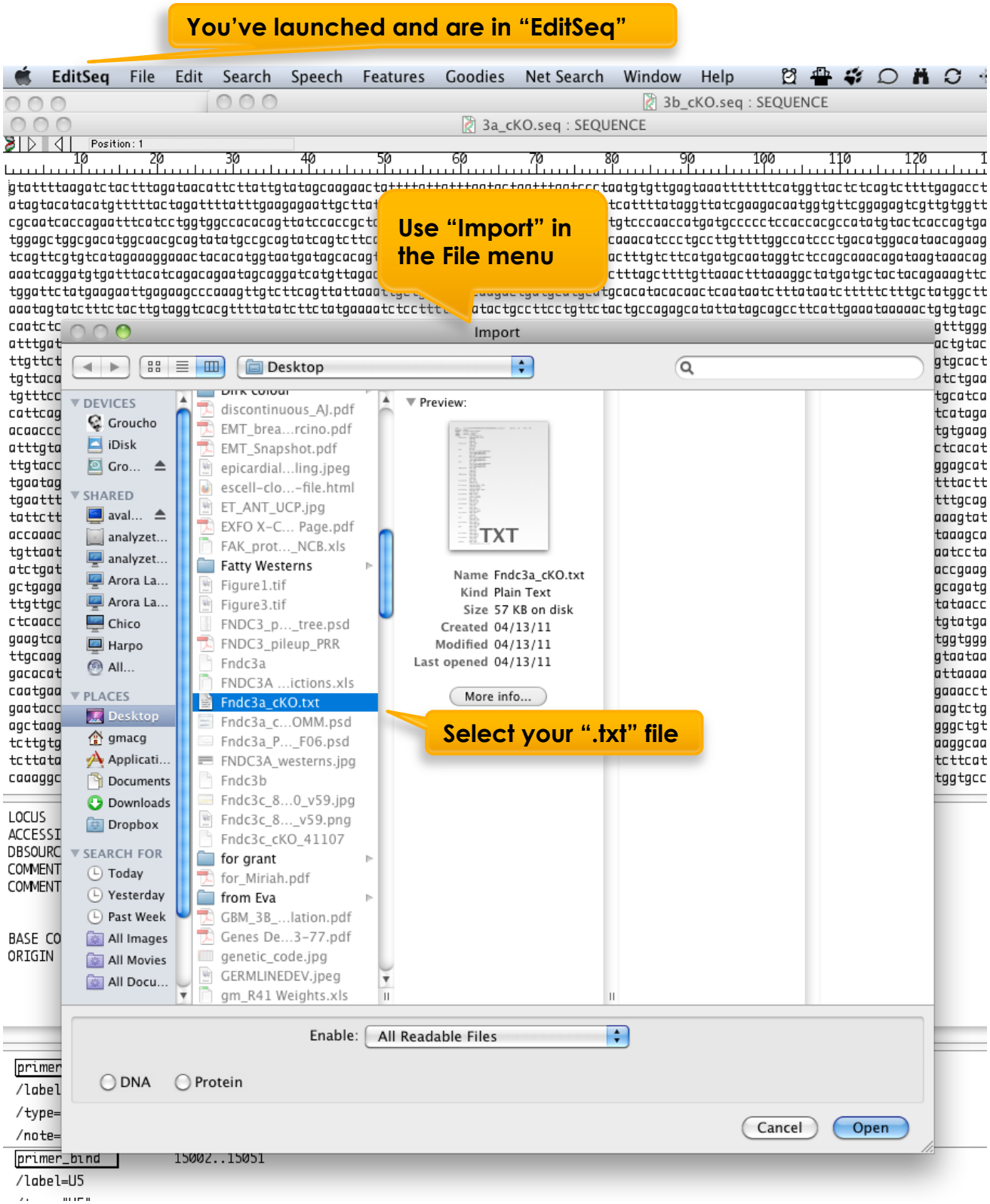


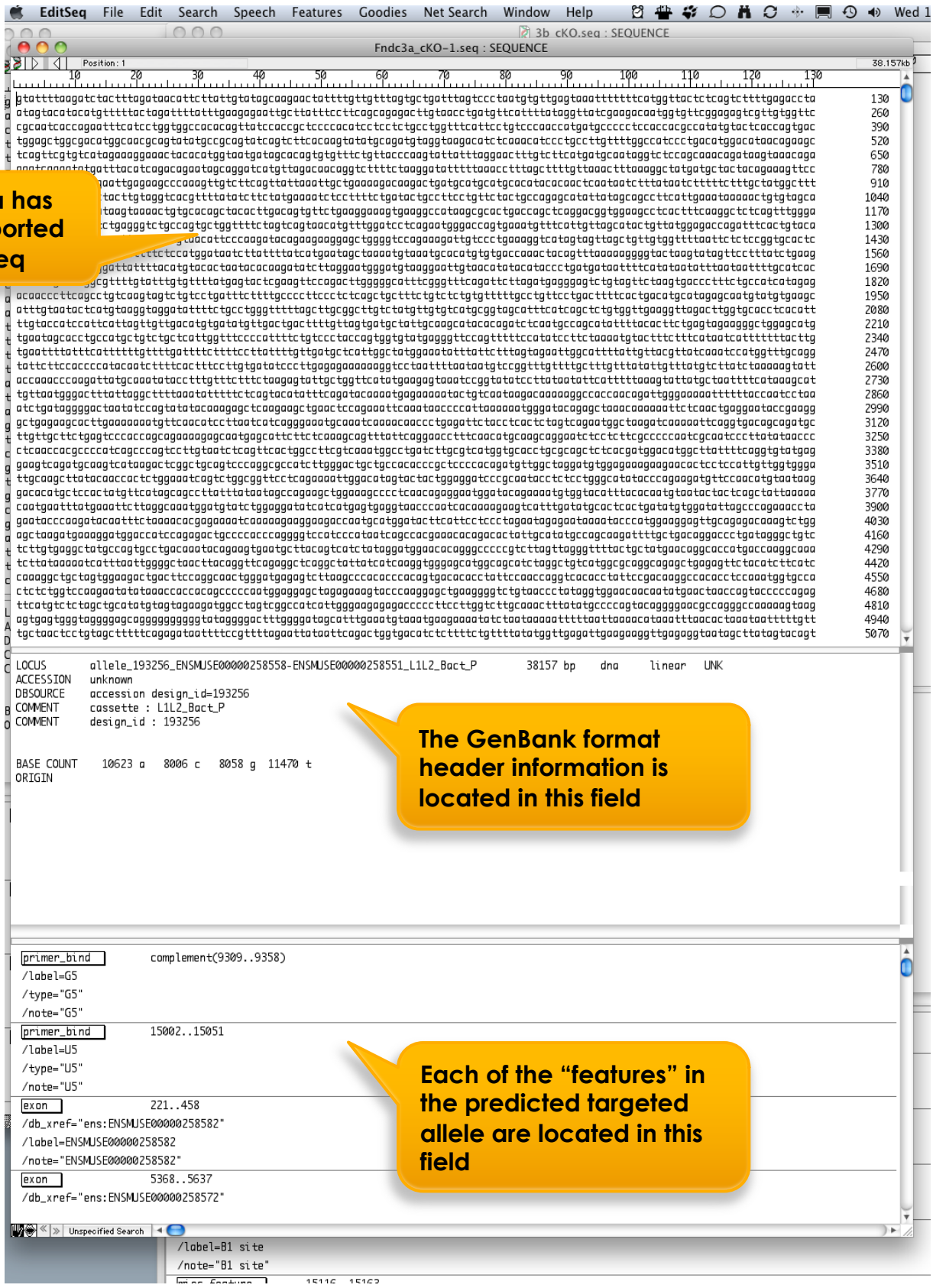
To enable the Lasergene suite's "EditSeq" application to import your data, save the GenBank-formatted information as a text (.txt) file



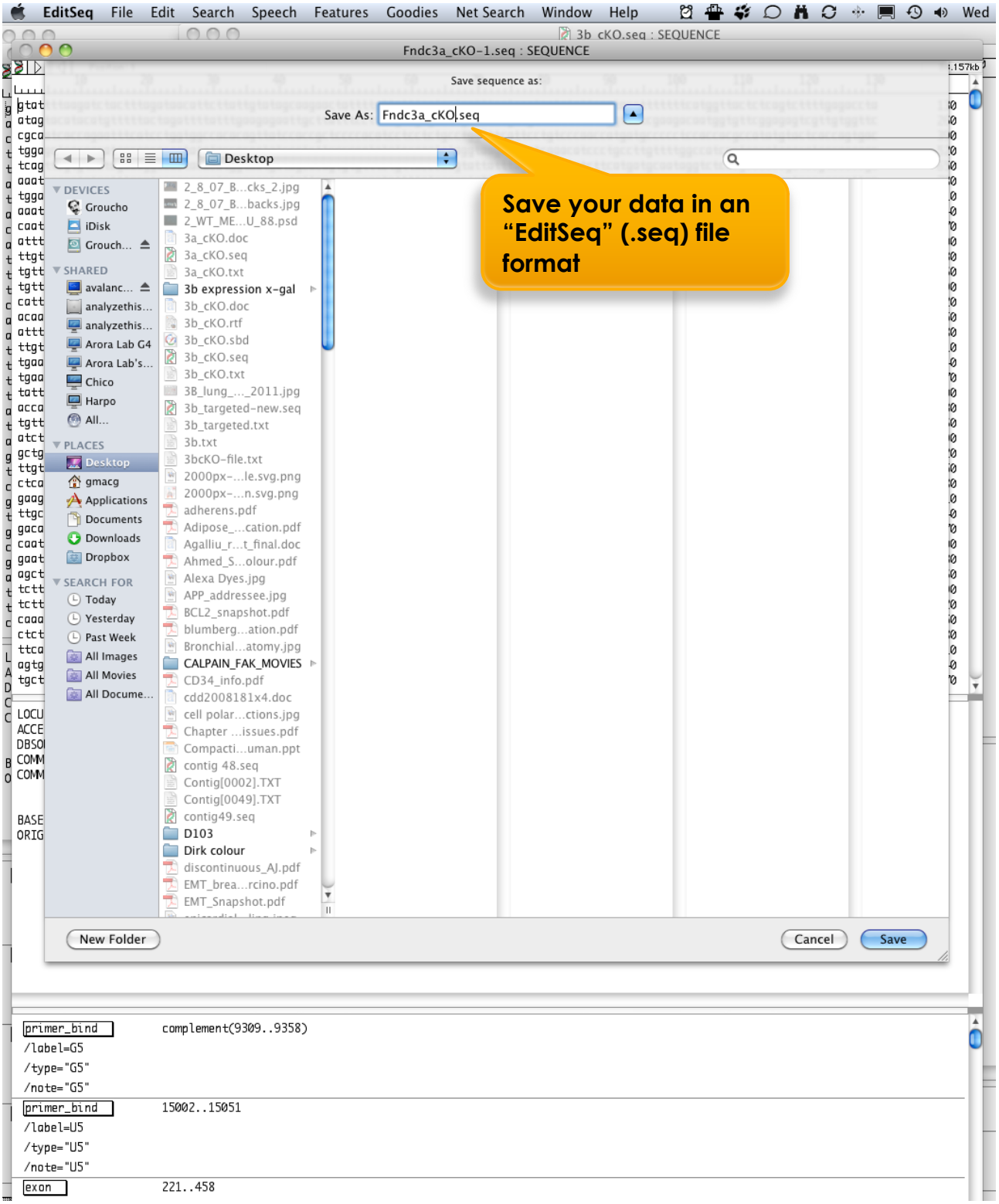
Next, import your saved ".txt" file into Lasergene suite's "EditSeq" application



The GenBank formatted information viewed following import into Lasergene suite's "EditSeq" application

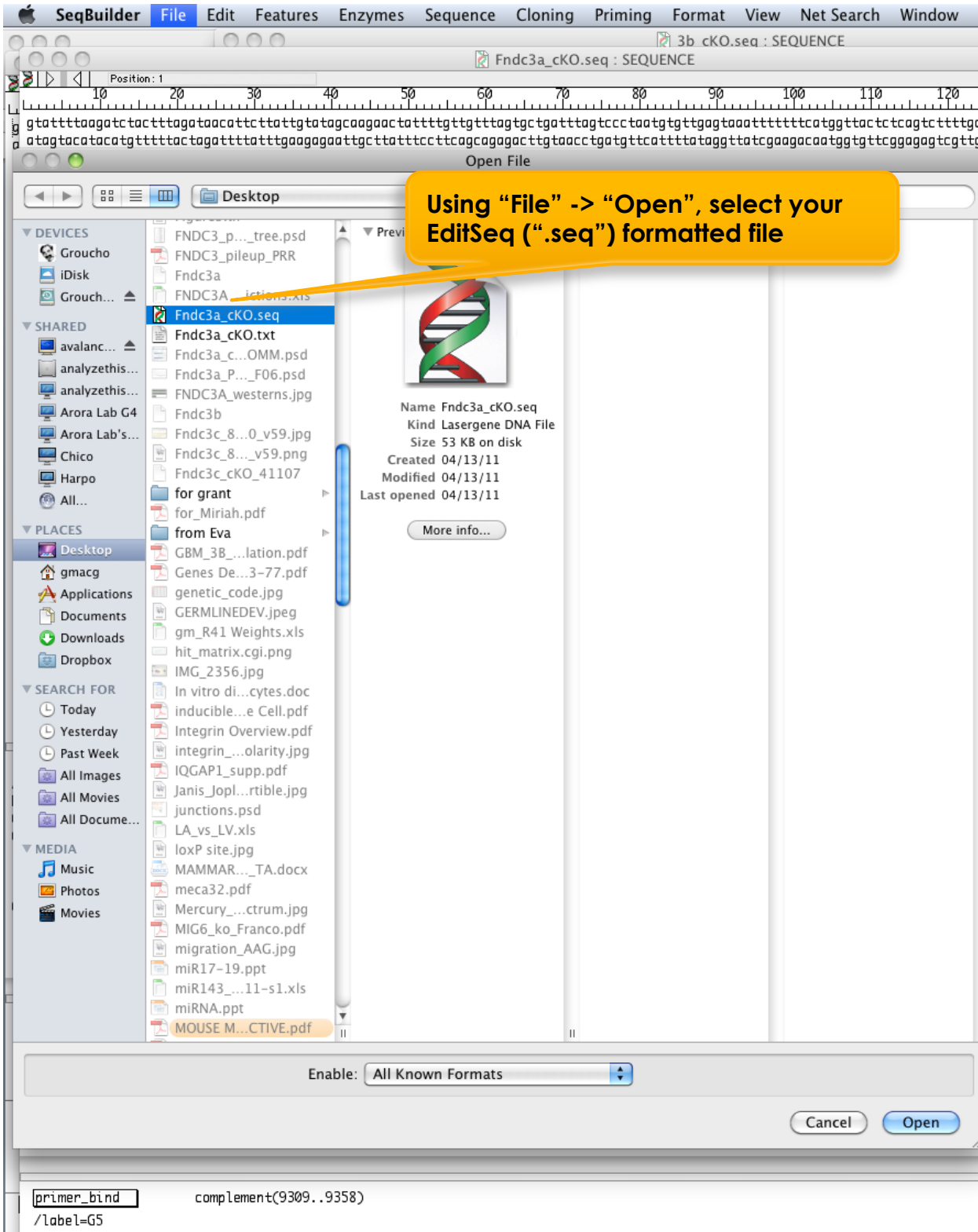


To view the information in Lasergene's "SeqBuilder" application, first save the information in an EditSeq (".seq") file format



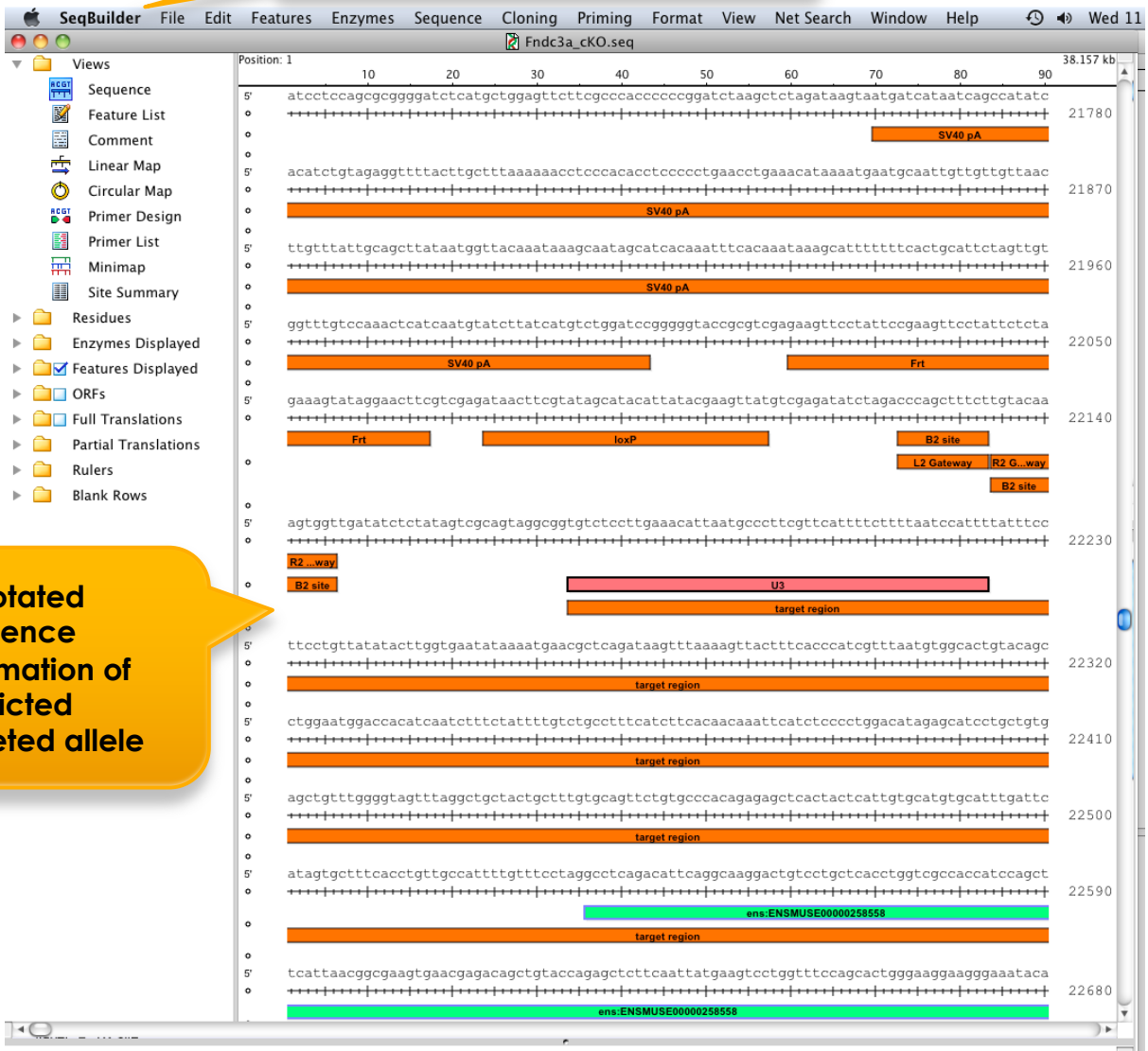
To view the information in Lasergene's "SeqBuilder" application, tell SeqBuilder to open the EditSeq (".seq") file

You are now using "SeqBuilder"



Your sequence information viewed in Lasergene's "SeqBuilder" application. Remember to save the information in a SeqBuilder (".sbd") file format

You are now using "SeqBuilder"



Annotated sequence information of predicted targeted allele

misc_feature	23109..27236	/label = 3 arm /note = 3 arm
misc_feature	9309..15051	/label = 5 arm /note = 5 arm
misc_feature	15079..15091	/label = B1 site /note = B1 site
misc_feature	15092..15103	/label = B1 site /note = B1 site
misc_feature	22123..22133	/label = B2 site /note = B2 site
misc_feature	22134..22146	/label = B2 site

Features in your file