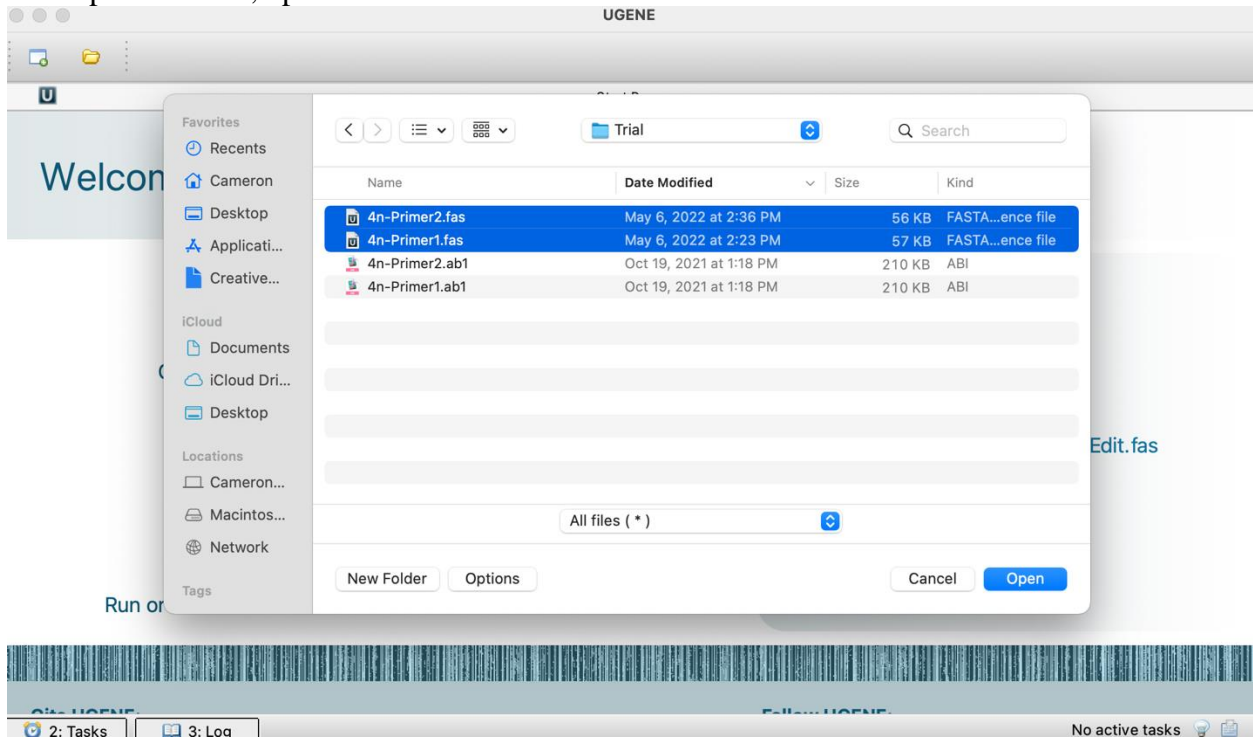


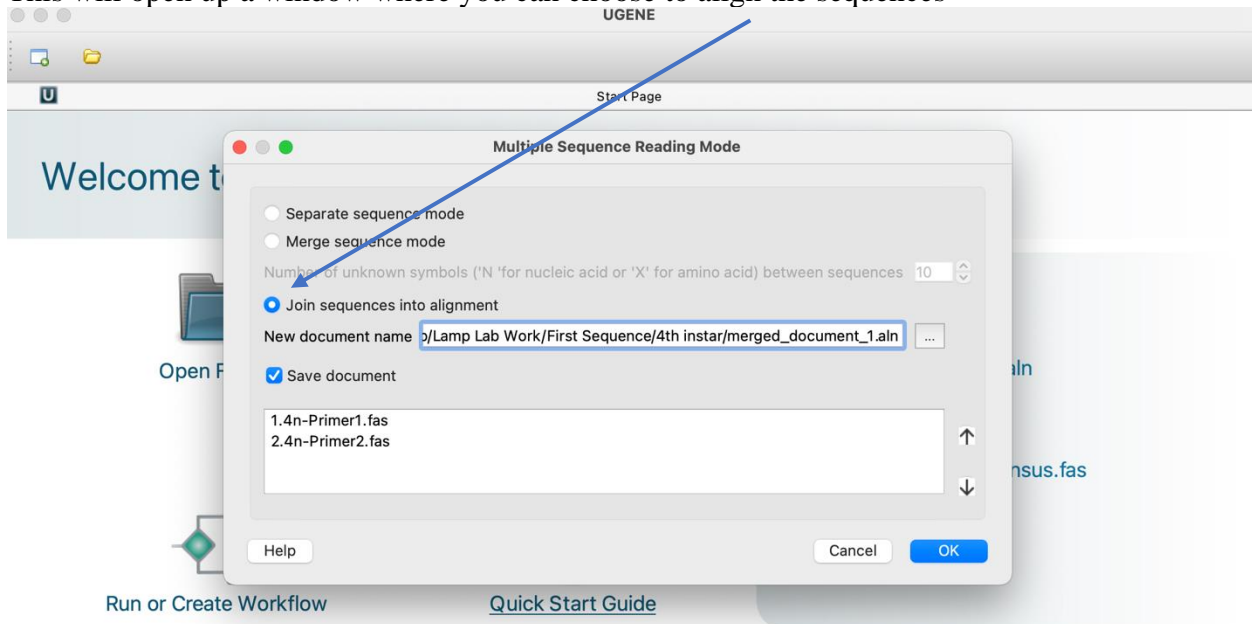
Using Unipro UGENE software to align sequences

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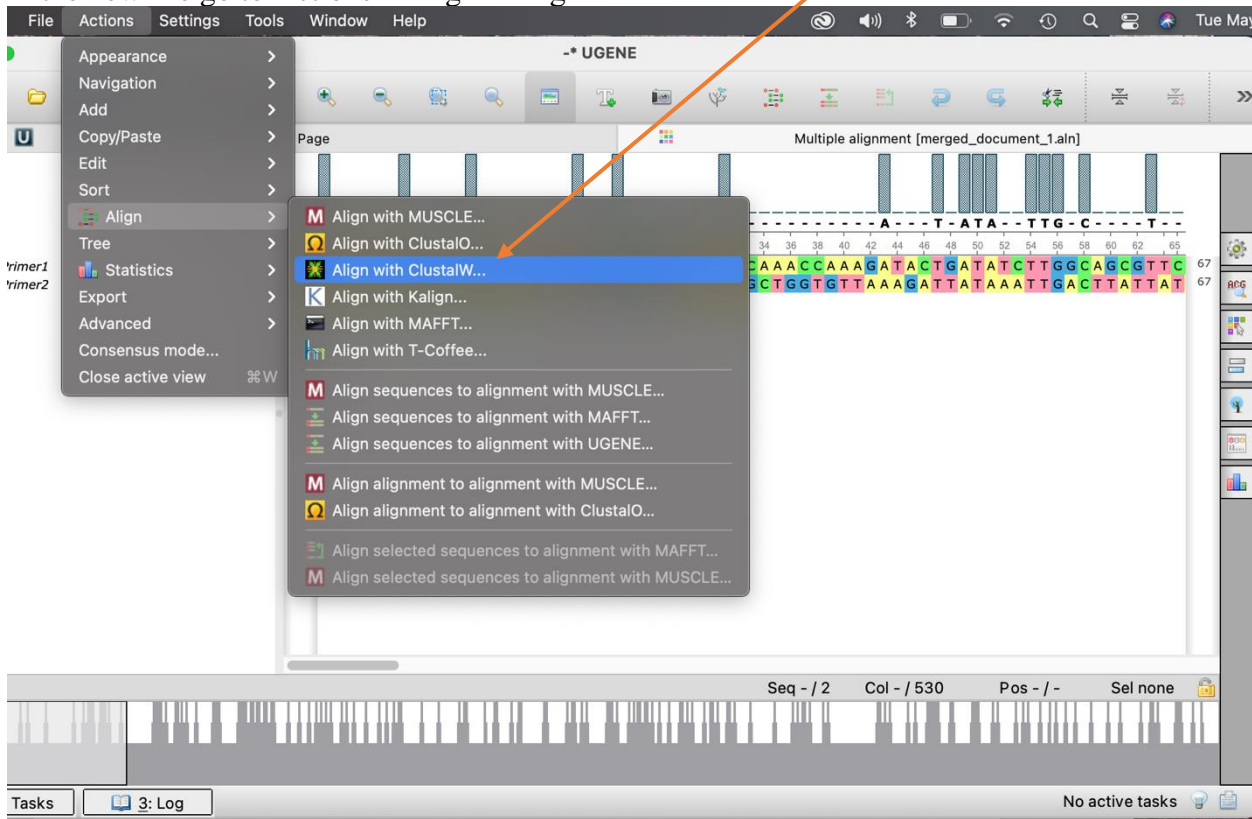
In Unipro software, open both files at once



This will open up a window where you can choose to align the sequences



This action saves a new file with the aligned sequences
In the new file go to Actions → Align → Align with ClustalW...



This will align your forward and reverse sequences into the consensus sequence

Now export your consensus sequence file to your local folder

The screenshot shows the UGENE software interface. The main window displays a multiple sequence alignment of two primers, 4n-Primer1 and 4n-Primer2. The consensus sequence is shown as a bar chart above the alignment. The alignment is as follows:

```
Consensus:
-----ATTATAAATTGACTTATTATACTCC
28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 69
[ 1] -----ATTATAAATTGACTTATTATACTCC 26
4n-Primer1
4n-Primer2
27 TCAAAGCTGGTGTAAAGATTATAAATTGACTTATTATACTCC 71
```

The 'Export Consensus' dialog box is open on the right side of the interface. It contains the following fields and options:

- Export Consensus: [text input field]
- Export to file: [file path input field] / [browse button]
- File format: [Plain text dropdown menu]
- Info: alphabet of the consensus is undefined the sequence can only be saved into a plain text document.
- Export: [button]
- Help: [button]

A blue arrow points from the text 'Now export your consensus sequence file to your local folder' to the 'Export' button in the dialog box.

Make sure to save it in “.fas” format