```
In[•]:= (***Input identifying information***)

In[•]:= date = ToString[Evaluate[Input["Input the date of the experiment"]]]

In[•]:= mouse = ToString[Evaluate[Input["Input the mouse identity (e.g. Mouse123)"]]]

In[•]:= sessionNumBef = Evaluate[Input["Input the session number before manipulation"]]

In[•]:= sessionNumAft = Evaluate[Input["Input the session number after manipulation"]]

In[•]:= discROIsQ = ToString[Evaluate[Input["Are there any non-useable ROIs?"]]]

In[•]:= numROIs =
          Length[FileNames["*", File[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/", date, "/",
              mouse, "/Session", ToString[sessionNumBef], "/dFOverF0TimeSeries/"]]]];

In[•]:= If[discROIsQ == "Yes",
         nonUseROIs = ToExpression[Import[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/",
              date, "/", mouse, "/Session", ToString[sessionNumAft], "/", date, "_", mouse,
              "_Session", ToString[sessionNumAft], "_nonUseableROIs.txt"]]];, nonUseROIs = {};]

In[•]:= sigROIsBef = Import[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/", date, "/", mouse,
            "/Session", ToString[sessionNumBef], "/VisStimResults/", date, "_", mouse,
            "_Session", ToString[sessionNumBef], "_sigResponsiveROIs.txt"], "List"];

In[•]:= sigROIsAft = Import[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/", date, "/", mouse,
            "/Session", ToString[sessionNumAft], "/VisStimResults/", date, "_", mouse,
            "_Session", ToString[sessionNumAft], "_sigResponsiveROIs.txt"], "List"];

In[•]:= sigRespROIs = DeleteCases[Table[
            If[MemberQ[sigROIsBef, n] || MemberQ[sigROIsAft, n], n, Null], {n, 1, numROIs}], Null];
         (***An ROI is significantly responsive it was significantly responsive
         during the before session OR the after session***)

In[•]:= nonSigRespROIs = Complement[Range[numROIs], sigRespROIs]

In[•]:= noGoodROIs = DeleteDuplicates[Join[nonSigRespROIs, nonUseROIs]]

In[•]:= usefulROIs = Complement[Range[numROIs], noGoodROIs]

In[•]:= (*****For each ROI picked for the session,
        upload the average evoked dF/F values*******)

In[•]:= Table[Evaluate@ToExpression[StringJoin["dFFAvgBef", ToString[n]]] =
            ToExpression /@ Import[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/", date,
               "/", mouse, "/Session", ToString[sessionNumBef], "/VisStimResults/",
               date, "_", mouse, "_Session", ToString[sessionNumBef], "_",
               "overallVisDFFZScored_ROI", ToString[n], ".txt"], "List"];, {n, 1, numROIs}];

In[•]:= Table[Evaluate@ToExpression[StringJoin["dFFAvgAft", ToString[n]]] =
            ToExpression /@ Import[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/", date,
               "/", mouse, "/Session", ToString[sessionNumAft], "/VisStimResults/",
               date, "_", mouse, "_Session", ToString[sessionNumAft], "_",
               "overallVisDFFZScored_ROI", ToString[n], ".txt"], "List"];, {n, 1, numROIs}];

In[•]:= (***Create a paired before-after data list for the evoked dF/F***)
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In[ ]:= meanDFFpairs = Table[{(ToExpression[StringJoin["dFFAvgBef", ToString[n]]])[[1]],
          (ToExpression[StringJoin["dFFAvgAft", ToString[n]]])[[1]]}, {n, usefulROIs}];

In[ ]:= (********)

In[ ]:= Export[StringJoin["S:/Imaging/Garrett/FMB208_2PRig/", date, "/", mouse,
          "/PairedAnalysis/", date, "_", mouse, "_visRespPaired.txt"], meanDFFpairs];
```