

## Inserting Images into NIH Grant Applications

### ABOUT

The reduced number of pages available for the research strategy in NIH grant applications makes proper placement of images, charts and graphics critical. This document covers basic features in Microsoft Word to help with grant application preparation, including image placement, captioning, and word wrapping. Workshops on this topic are offered through the Taubman Health Sciences Library. For information on upcoming workshops, please contact Merle Rosenzweig, [oriley@umich.edu](mailto:oriley@umich.edu)

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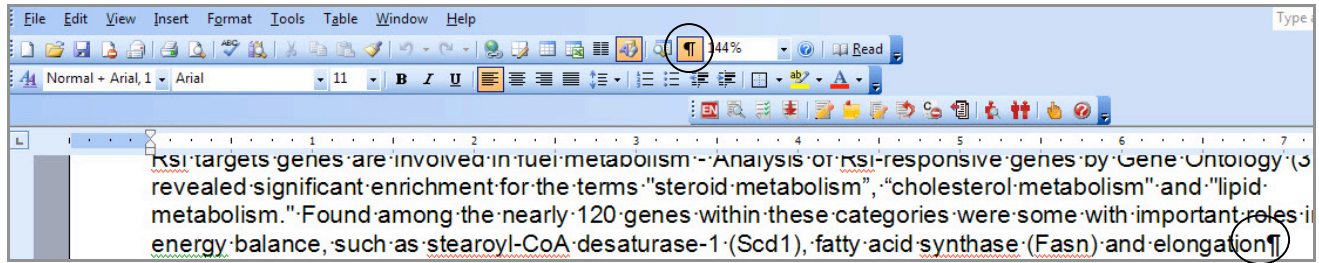
This method works in Microsoft Word 2007 and Microsoft Word 2010 on PCs and Microsoft Word 2008 and 2010 on Macs. It allows you to position captions above and below images and charts. It is the most straightforward method.

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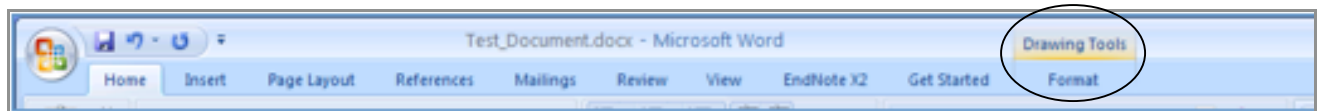
This method works in Microsoft Word 2007 on PCs. It allows you to position captions above, below, to the left, and to the right of images and charts. Note, this method requires some degree of dexterity with the cursor.

## SEVEN HELPFUL HINTS

1. Click paragraph symbol ¶ on the Home tab to show document formatting.



2. Left-click to select an object. Right-click on an object to pull up formatting options.
3. To select multiple objects, left-click the first, then hold Ctrl while left-clicking other objects.
4. Ctrl-arrows let you move an object incrementally.
5. Ctrl-Z to undo.
6. Select an object and a Format tab for that object will appear on the menu bar. Wrapping and position options can be accessed from this tab.



7. Text Box method works in both Word 2007 and Word 2010, but the toolbars look slightly different:

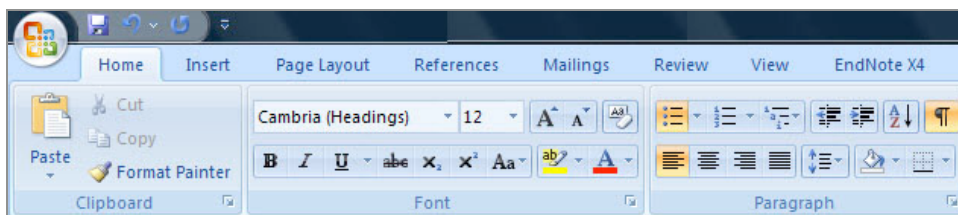


Figure 1 Word 2007

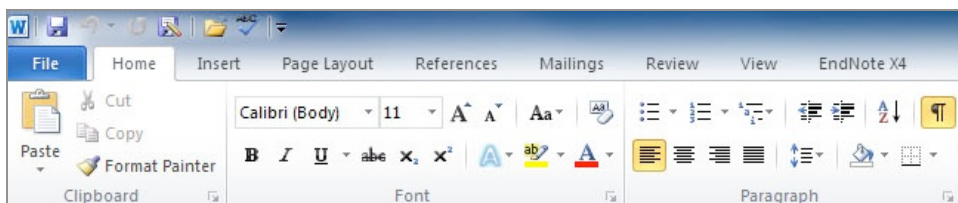


Figure 2 Word 2010

## DEFINITIONS

1. **Grouping:** Grouping objects combines them so you can work with them as though they were a single object. You can ungroup a group of objects at any time and then regroup them later.
2. **Positioning:** Options help you see where an image will appear on your page. This is most useful when you've grouped an image and its caption, or use the Drawing Canvas.
3. **Wrapping:** Determines how text will flow around your image.

## TO FIND POSITIONING AND WORD WRAPPING OPTIONS

These options are available from the object format toolbar for all images, pictures, or Canvases.

- For images, right-click the image. Select **Text Wrapping**.
- For Drawing Canvas, right-click in the Canvas. Select **Format Drawing Canvas > Layout**.
- Types of word-wrapping:
  - **Inline** with text - This is the default option and will break your text (sentences before and after the image will appear at the top and bottom, no wrapping). No horizontal alignment editing possible. Not ideal for most graphics as it takes up too much space.



- **Tight** - Wraps words immediately to the border of the image. Horizontal alignment is possible. This option generally conserves more space than square wrapping, but can make text flow confusing or the distinction between text and caption unclear.



- **Square** - This option allows you to wrap text (depending on the size of the image) and leaves white space equidistant around the image. Horizontal alignment is possible. This option generally gives the cleanest look.

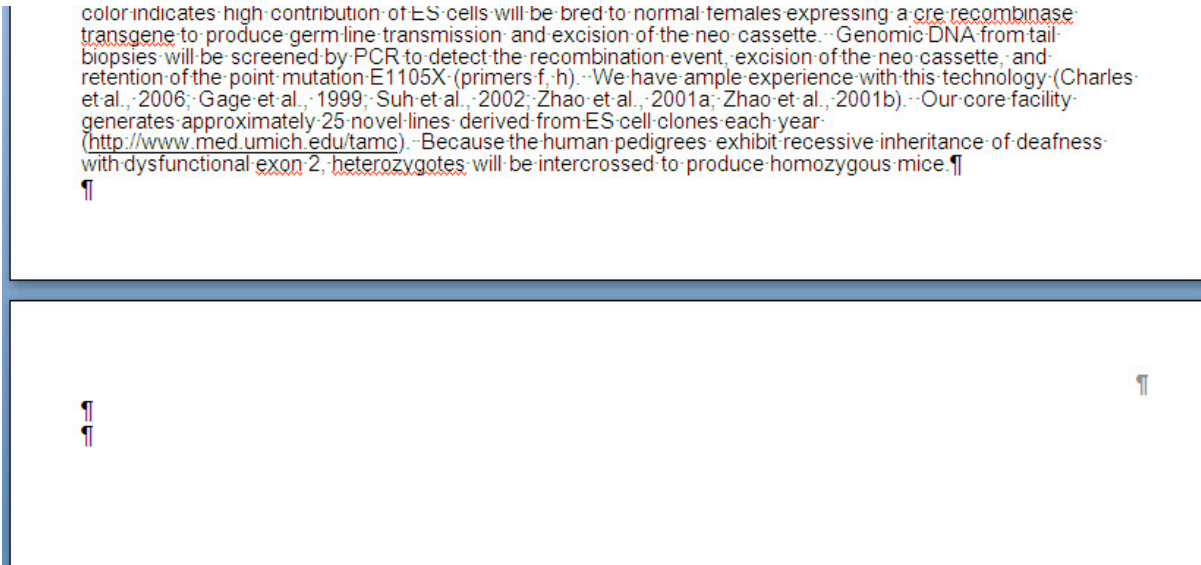


- **DO NOT USE** In front or Behind.

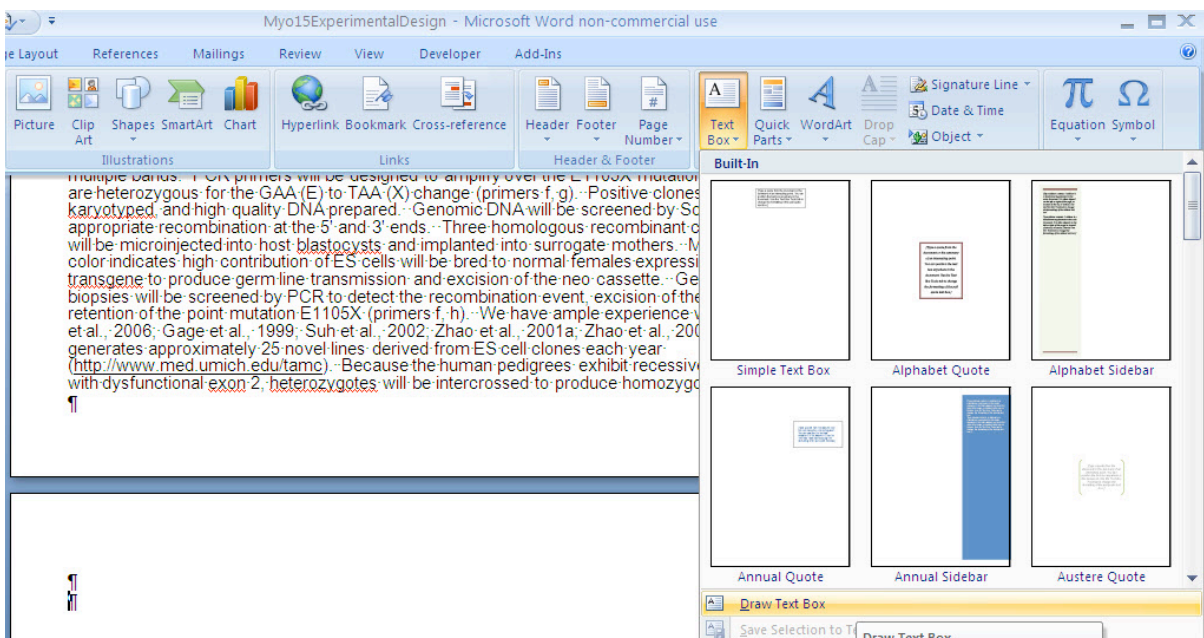
## METHOD 1: TEXT BOX

In this option, the image and its caption are placed in a Text Box. A Text Box can keep the image and caption together, and the text can wrap around the Text Box.

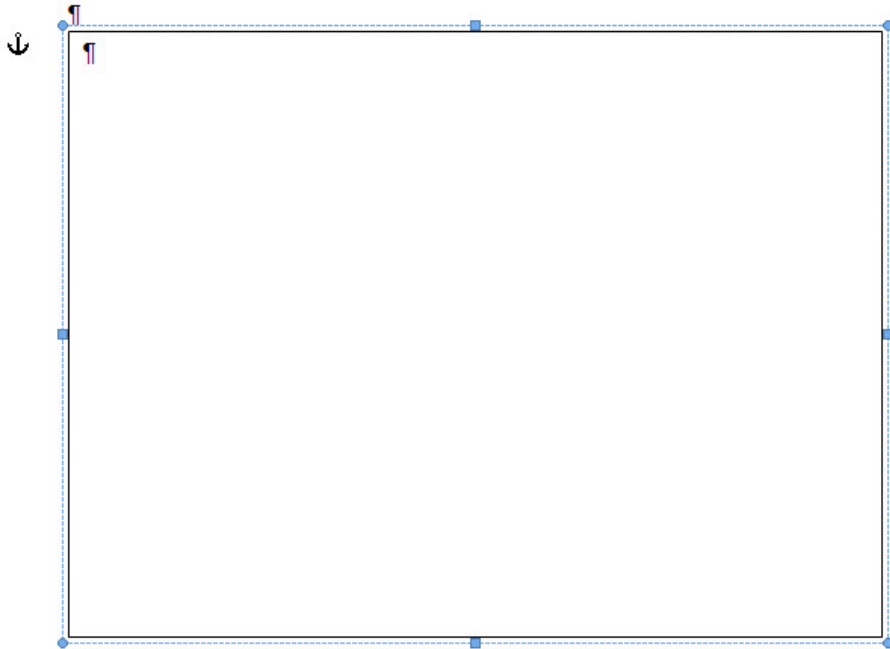
- **Step 1:** In the document, place the cursor near where you want the image inserted (can be adjusted later). Hit the “Enter” key several times until you have a clean part of the document to work on.



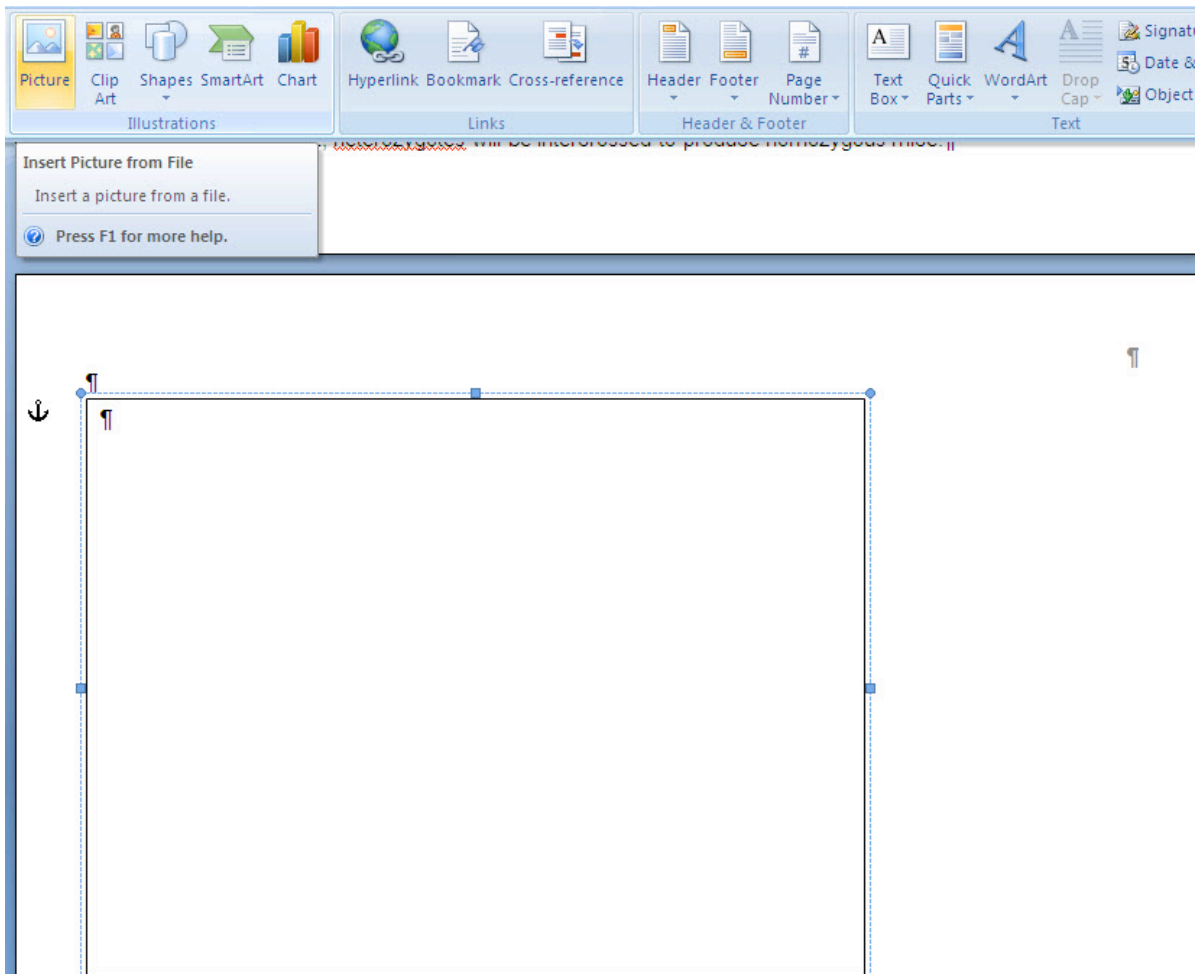
- **Step 2:** Select the “Insert” tab. Select “Text Box.” Select “Draw Text Box.”

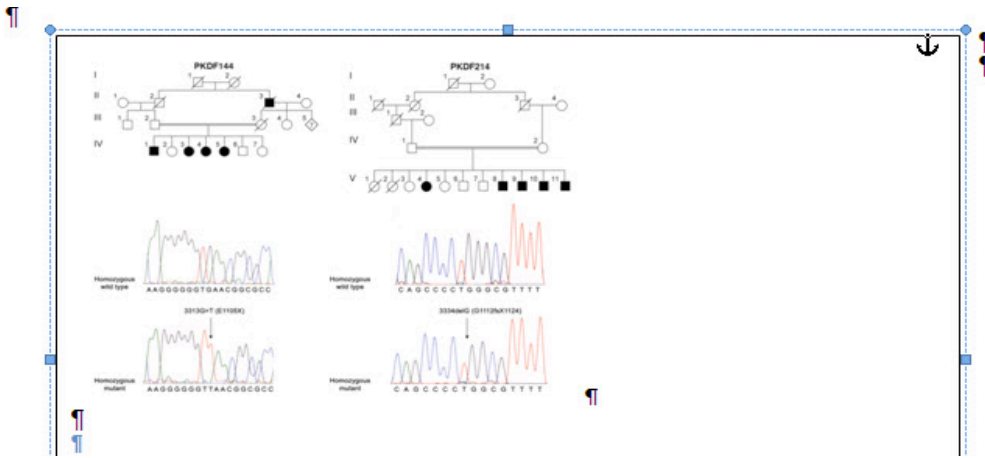


- **Step 3:** Using the cross-hairs that appear, draw a text box in the white space you created. Text box size can be adjusted later.

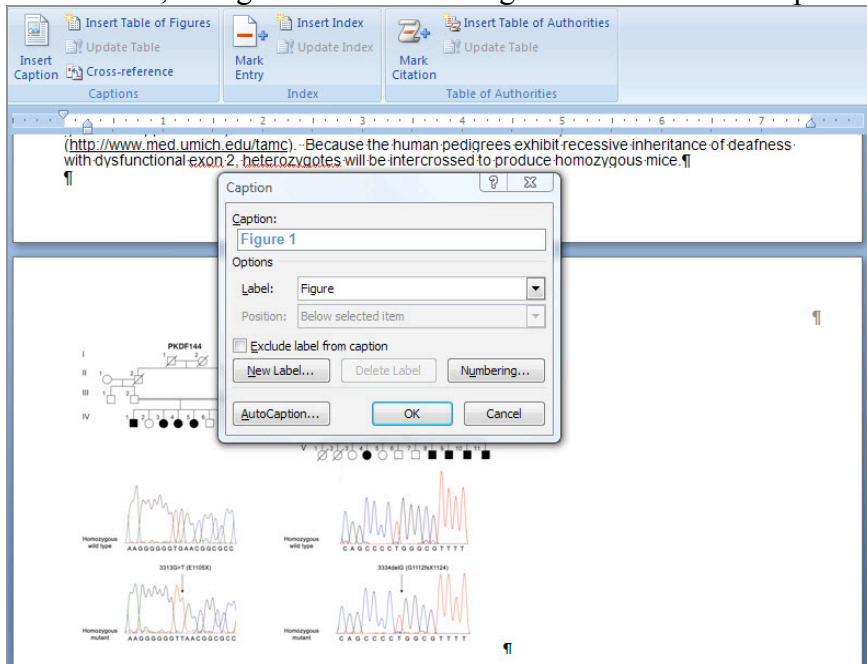


- **Step 4:** Select the “Insert” tab again if not already activated. Select “Picture” and find the image.

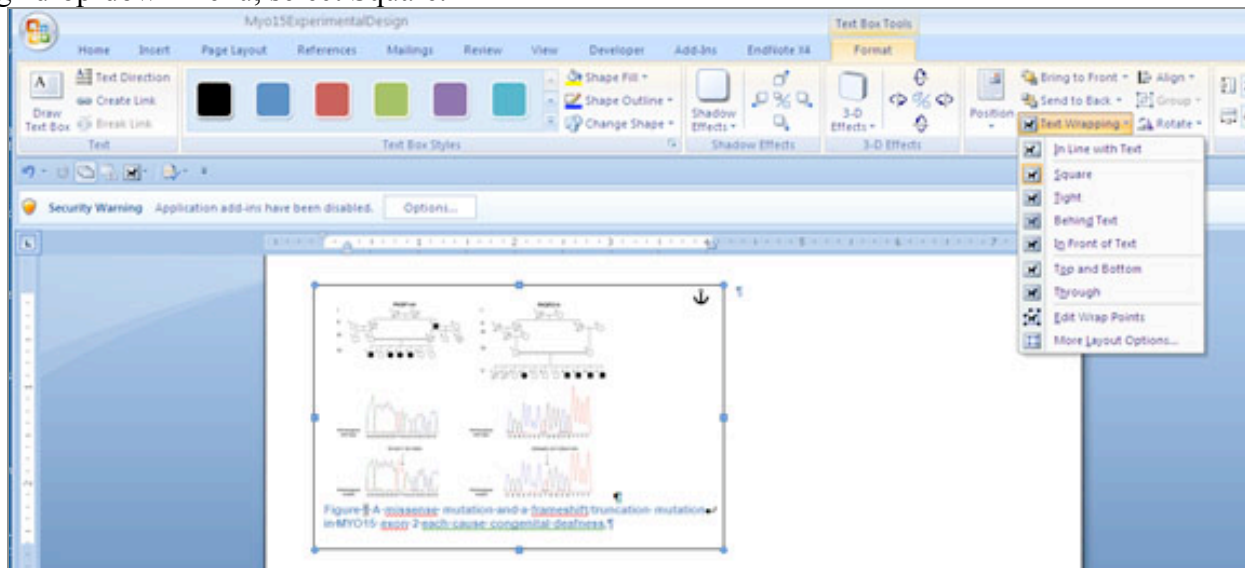




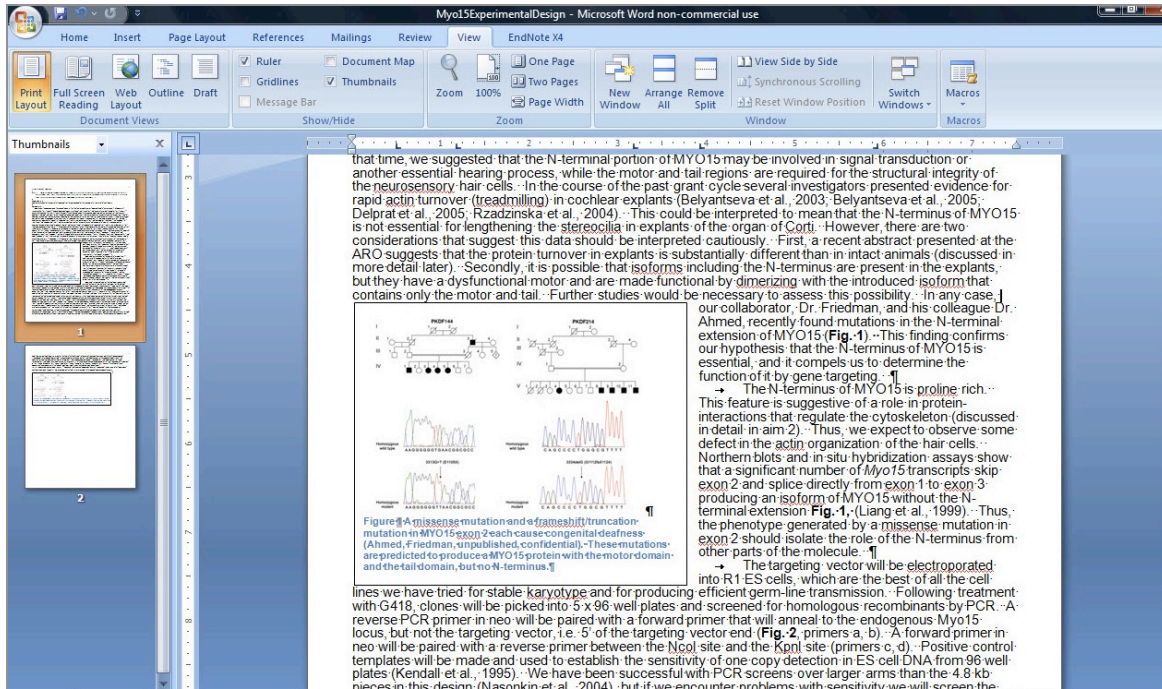
- **Step 5:** Right-click on the image and select “Insert Caption.” Note that the caption is numbered as Figure 1. Type the caption. If it is long, you may want to click “OK” and type the caption within the text box. To insert a table, change the Label from Figure to Table in the Caption pop-up box.



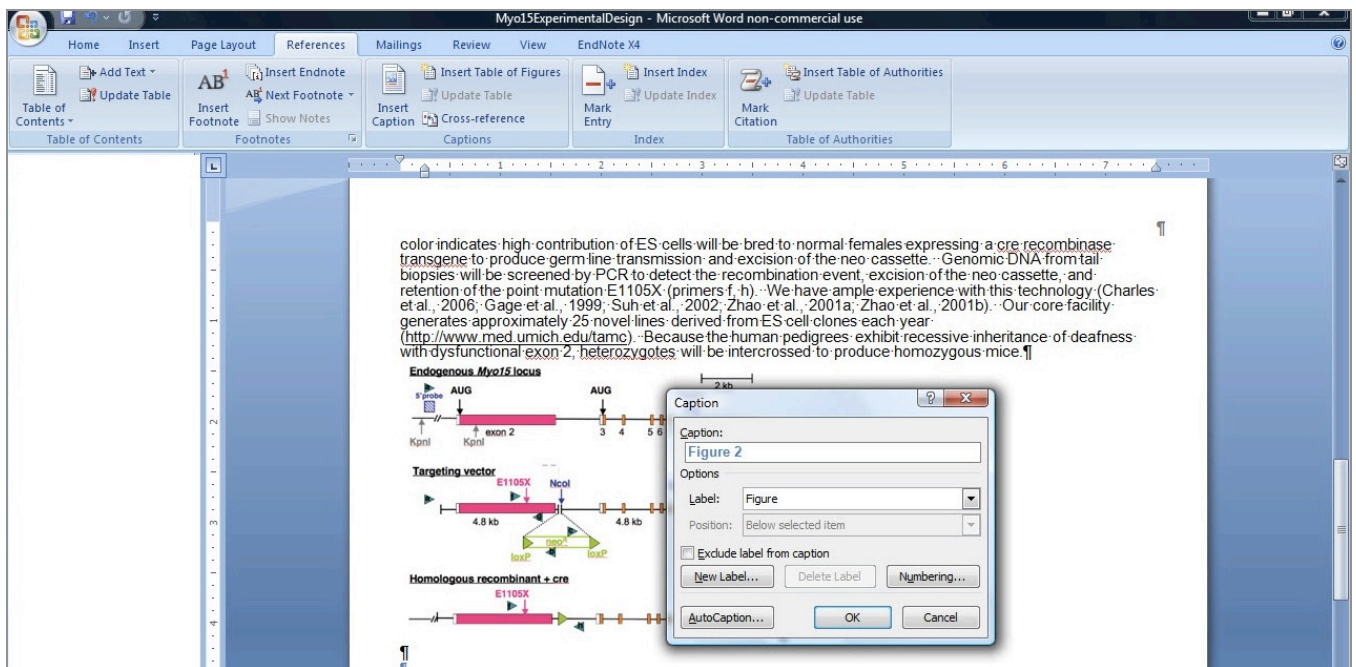
- **Step 6:** Click on the outline of the text box to select it. Select the “Format” tab that appears. From the “Text Wrapping” drop-down menu, select Square.”



- **Step 7:** Resize the image and text box as desired. Drag and drop the text box into position in the document. You can tweak the position and remove paragraph returns to conserve space in your text.



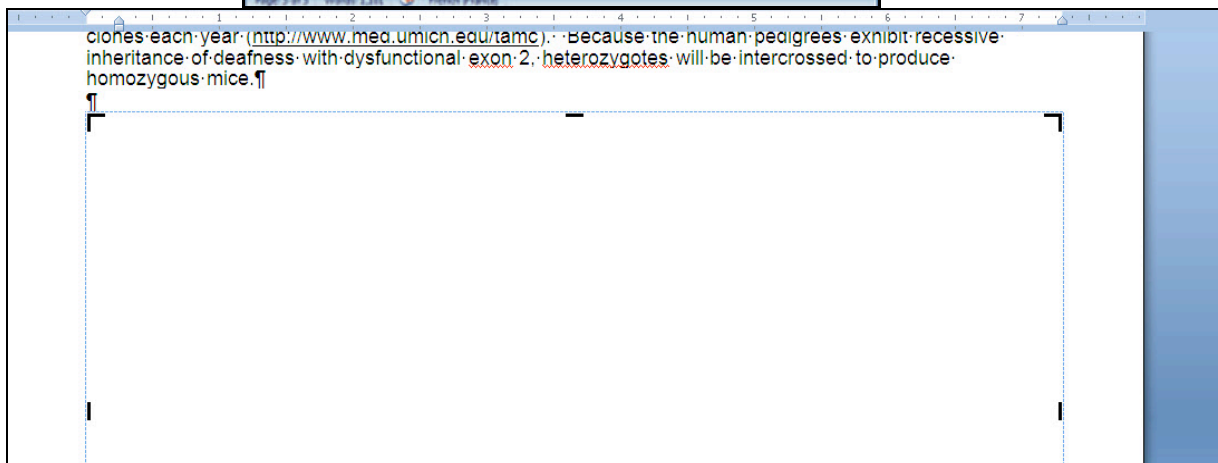
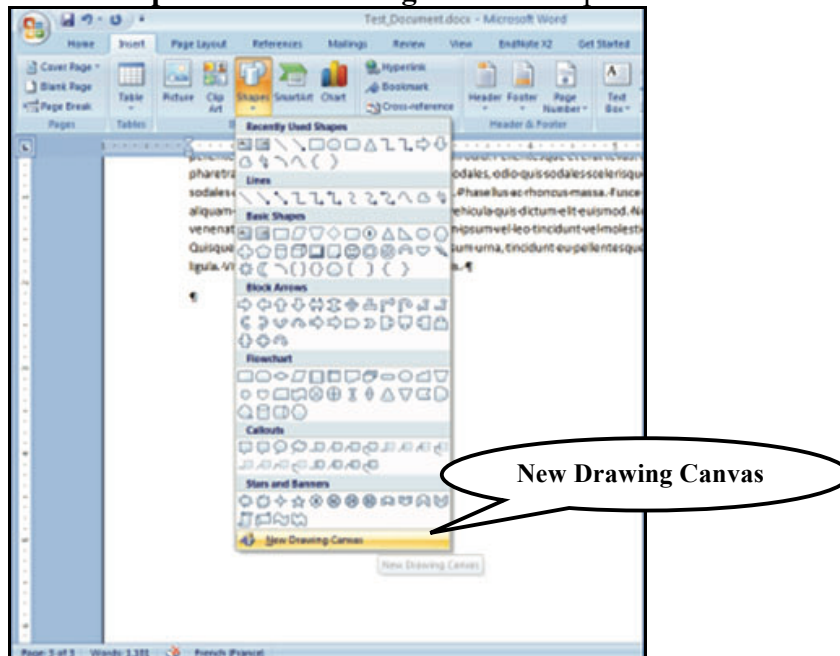
- **Step 8:** The steps can be followed for another figure. The caption will be numbered as Figure 2.



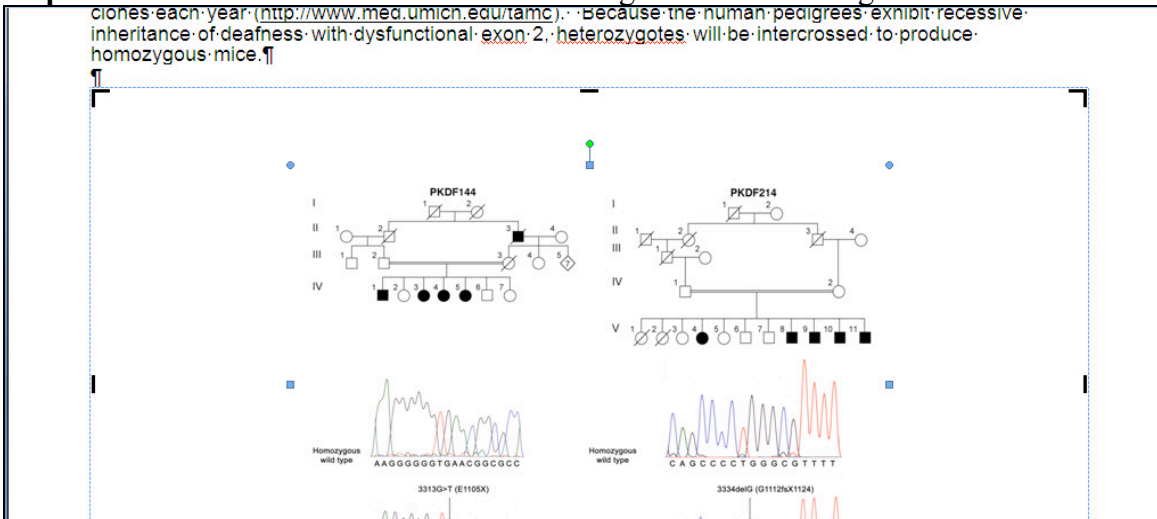
## METHOD 2: DRAWING CANVAS

### Insert the Image

- **Step 1:** Click **Insert tab > Shapes > New Drawing Canvas** to open canvas.



- **Step 2:** Click **Insert tab > Picture** to insert image into the Drawing Canvas.

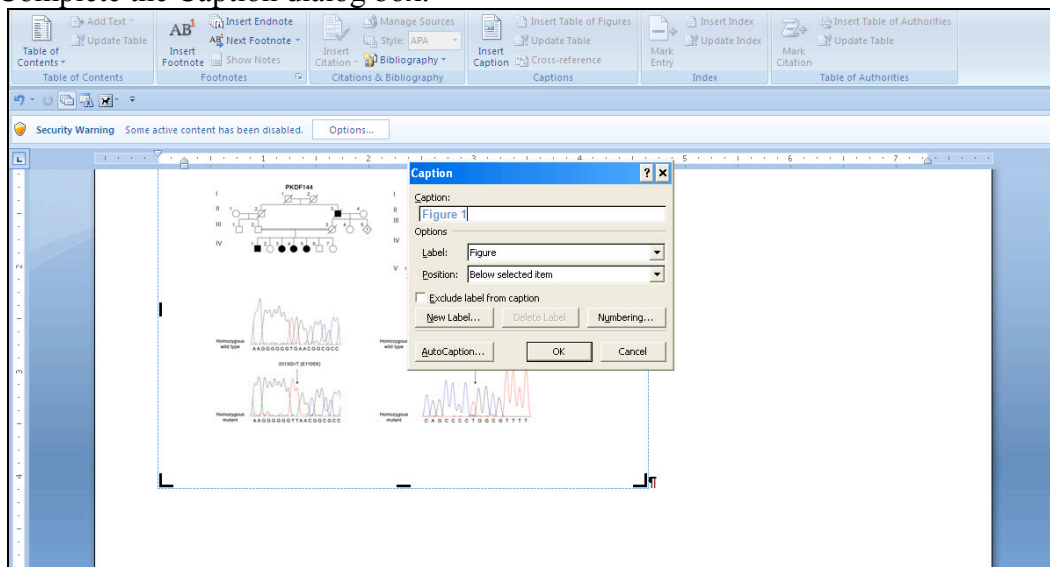


- **Step 3:** Resize, format, position image as desired.

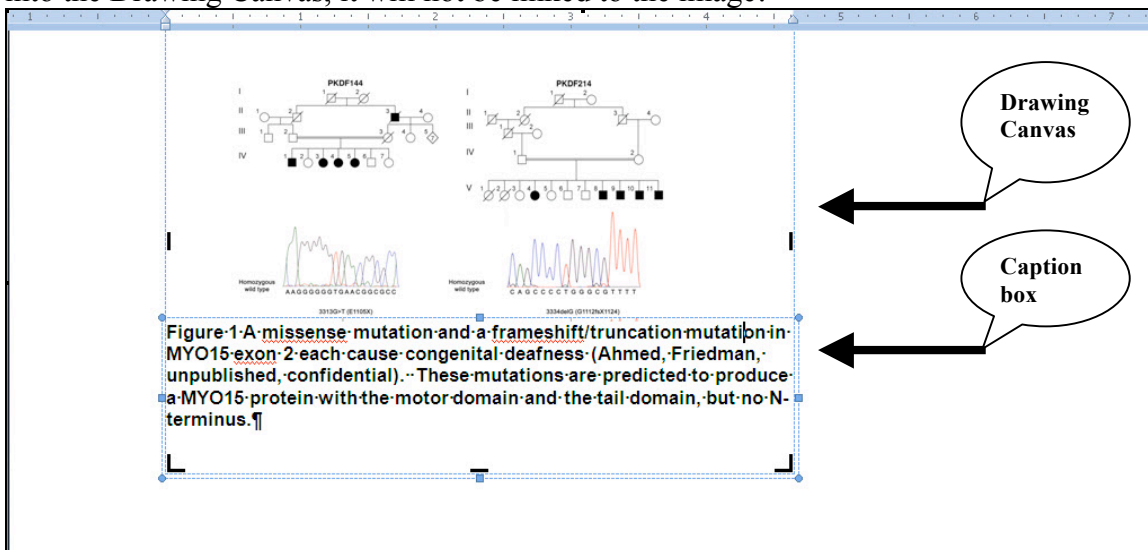


## Add a Caption to the Drawing Canvas

- **Step 1:** Right-click in the Drawing Canvas. Select Insert Caption.
- **Step 2:** Complete the Caption dialog box.



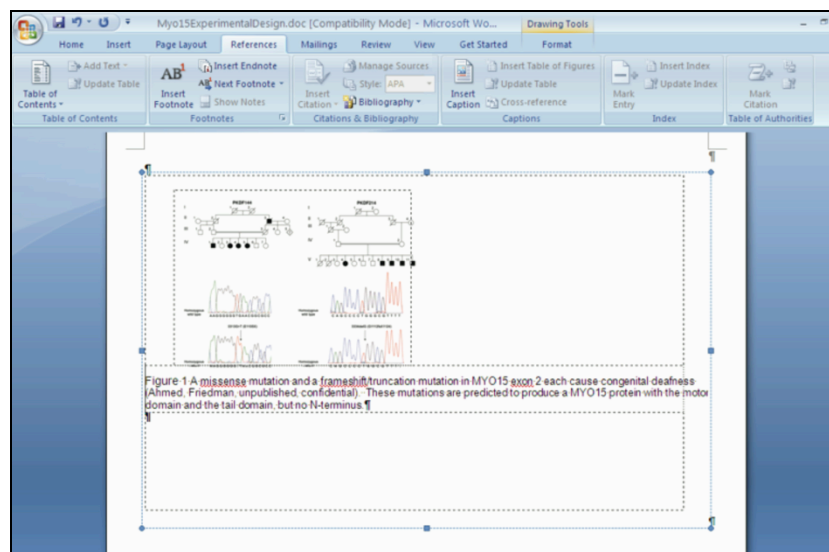
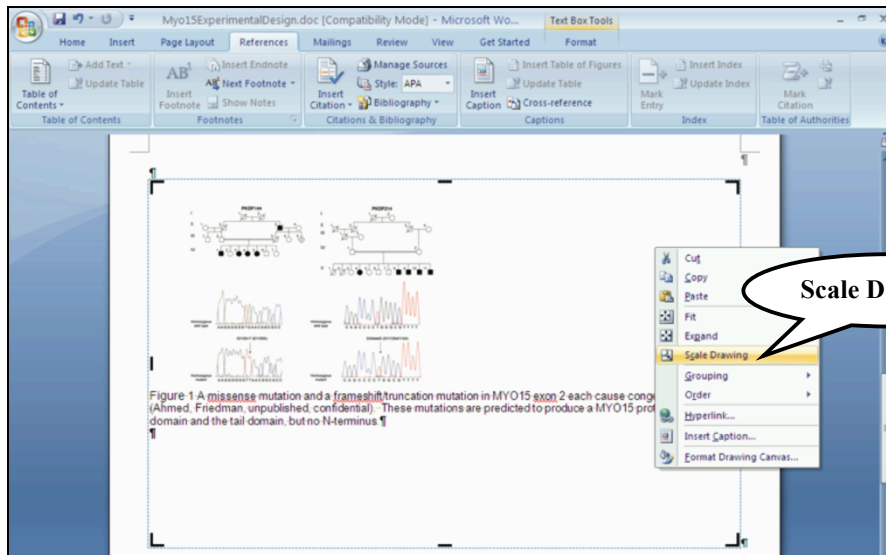
- **Step 3:** Select the caption box and drag it into the Drawing Canvas. If you do not drag the caption into the Drawing Canvas, it will not be linked to the image!



- **Step 5:** Format, size, and position as desired.

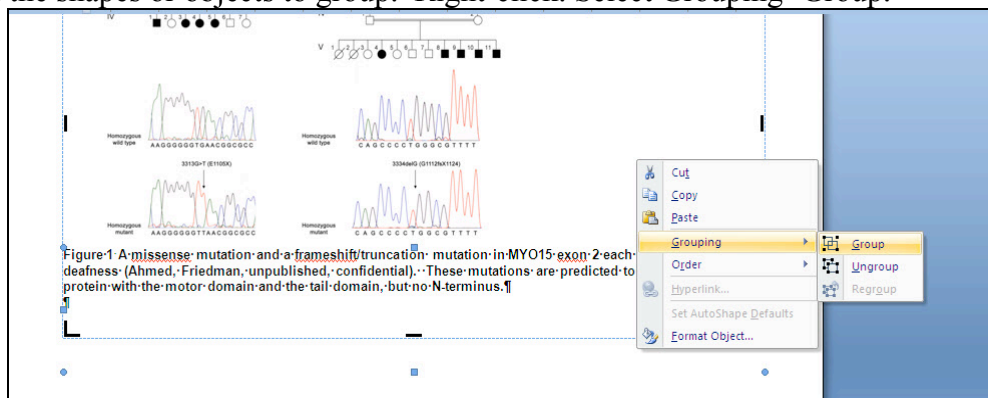
### Drawing Canvas tips:

- The Drawing Canvas will be the dimension of the largest element. If you're not able to change the size of the Canvas, resize the individual elements within it.
- Where you click within the Canvas determines what formatting options you will have. Be careful to click in the Canvas (not on an element) to format the Canvas.
- To scale the drawing and make the objects and canvas proportionately smaller or larger right click to activate the Scale Drawing command and then drag the edges of the canvas to the size you wish it to be.



**Group or ungroup objects in the Drawing Canvas:**

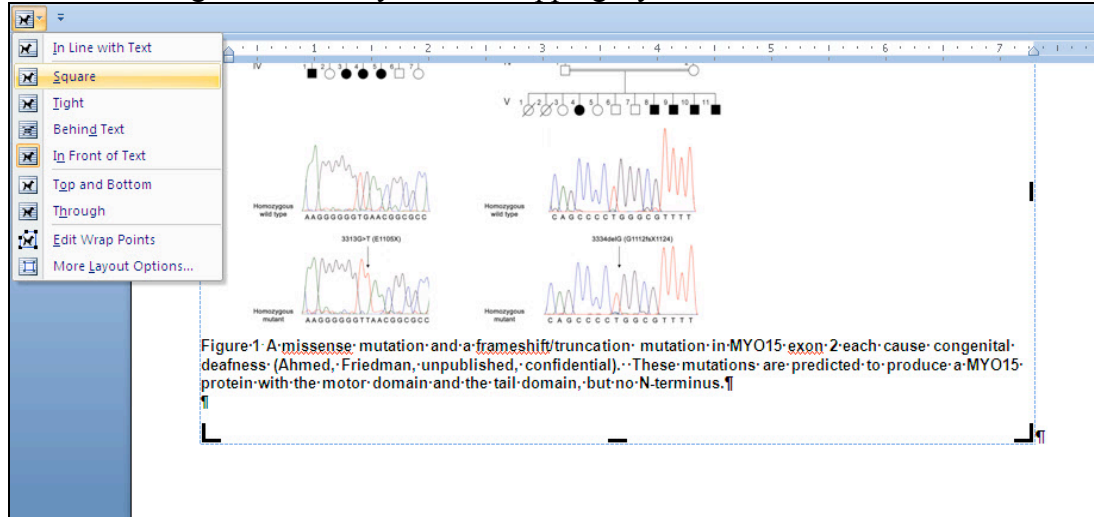
- Grouping lets you move and resize all shapes or objects at the same time as though they were a single object.
- You can ungroup a group of shapes at any time and then regroup them later.
- Select the shapes or objects to group. Right-click. Select Grouping>Group.



- Size and format the Drawing Canvas as desired before placing it into your text.
- Click to select the Drawing Canvas (not an individual element within it!).

## Text Wrapping

- Text wrapping determines how the text appears in relation to Drawing Canvas.
- When you draw a Drawing Canvas, wrapping style usually defaults to In Front Of Text.
- It is best to set the wrapping before you move the Drawing Canvas into your text.
- The **Square** style wraps the text around all sides of a Drawing Canvas and moves as you add or delete text.
- Use Drawing Tools > Format tab to position or wrap text, **OR** Right-click within Drawing Canvas, select Format Drawing Canvas > Layout for wrapping styles.



## Position the Drawing Canvas Within the Text

- Use Cut and Paste functions to place image in document.
- You can align as you wish but it is best to select left or right

Considerations that suggest the data should be interpreted cautiously. First, a recent abstract presented at the ARO suggests that the protein turnover in explants is substantially different than in intact animals (discussed in more detail later). Secondly, it is possible that isoforms including the N-terminus are present in the explants, but they have a dysfunctional motor and are made functional by dimerizing with the introduced isoform that contains only the motor and tail. Further studies would be necessary to assess this possibility. In any case, our collaborator, Dr. Friedman, and his colleague Dr. Ahmed, recently found mutations in the N-terminal extension of MYO15 (Fig. 1). This finding confirms our hypothesis that the N-terminus of MYO15 is essential, and it compels us to determine the function of it by gene targeting.

Figure-1 A missense mutation and a frameshift/truncation mutation in MYO15 exon 2 each cause congenital deafness (Ahmed, Friedman, unpublished, confidential). These mutations are predicted to produce a MYO15 protein with the motor domain and the tail domain, but no N-terminus.

The N-terminus of MYO15 is proline rich. This feature is suggestive of a role in protein interactions that regulate the cytoskeleton (discussed in detail in aim 2). Thus, we expect to observe some defect in the actin organization of the hair cells. Northern blots and in-situ hybridization assays show that a significant number of *Myo15* transcripts skip exon 2 and splice directly from exon 1 to exon 3 producing an isoform of MYO15 without the N-terminal extension Fig. 1. (Liang et al., 1999). Thus, the phenotype generated by a missense mutation in exon 2 should isolate the role of the N-terminus from other parts of the molecule.