PathoZoom®

liveView

Manual

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We hope you will enjoy your PathoZoom® LiveView. If you have any questions,
please contact us: Smart In Media, Tel. +49 (0)221 27726978, info@smartinmedia.com

1. Before Starting

Before starting to use the program, you must install it on your device or computer, attach the camera to the microscope and prepare it to visualize the slides.

1.1. Installation of PathoZoom® LiveView

For the complete installation of the program, please first look for the file PathoZoom®_LiveView_Setup.exe.
LiveView needs the file pylon_USB_Camera_Driver.msi in order to work properly. If you haven't installed this yet, please double-click the driver and install it first (if "PathoZoom® Scan" is already installed on your computer, then the driver is also present and you do not need to reinstall it).

>> The program "PathoZoom® LiveView" has been installed.

NOTICE

The measurement functionality of PathoZoom® LiveView is not approved for diagnostic purposes!

1.2. License

The camera must be registered and linked to "PathoZoom® LiveView":

- Click on the "License" button in the upper right corner of your screen (Figure 1).
- Click on the "Add license" button (Figure 2).

Figure 1

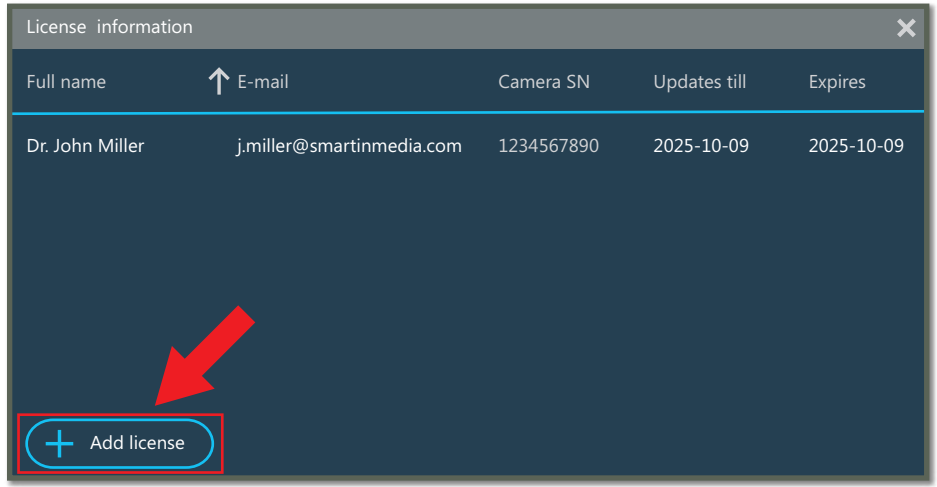

Figure 2

- Search for a file that corresponds to your license, e.g. License_Dr. John Miller (Figure 3). Select the file and click on "Open".

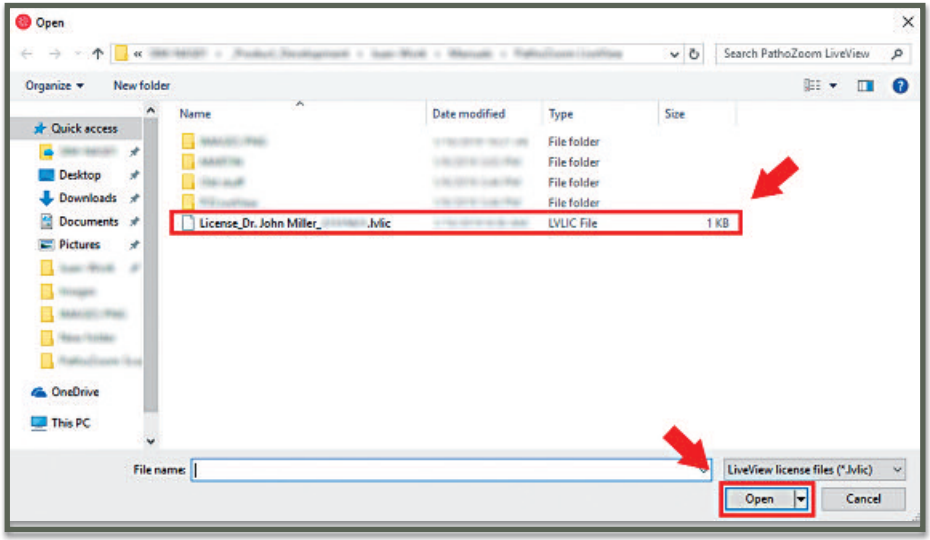

Figure 3

- If the license that has been selected is correct, a message will confirm that you have registered LiveView.

- Now, after clicking again on "License" in the upper left corner, the information of your license will be found, along with the name and the associated e-mail (Figure 4).

Figure 4

>> The license has been registered.

NOTICE

If at any time there is a connection problem between the camera and the computer, such as a disconnected camera cable, the following message will appear (Figure 5):

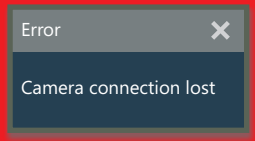

Figure 5

1.3. Microscope Preparation

For the use of PathoZoom® LiveView it is necessary:

- To connect the camera cable to a 3.0 USB link on your computer.
- To connect the camera to the microscope.
- To adjust the microscope's light for the best image presentation.

2. Calibration

The calibration of your camera is important for correct measurements and must be regularly performed. Please note that the measurement can only be correct if the same objective is selected on the microscope as shown in the software!

- The calibration slide must be placed on the microscope stage.
- Click on the "Calibration" button, located in the options menu at the top edge of the screen (Figure 6). When the cursor is placed over the "Calibration" button, the message "Show calibration panel" appears.

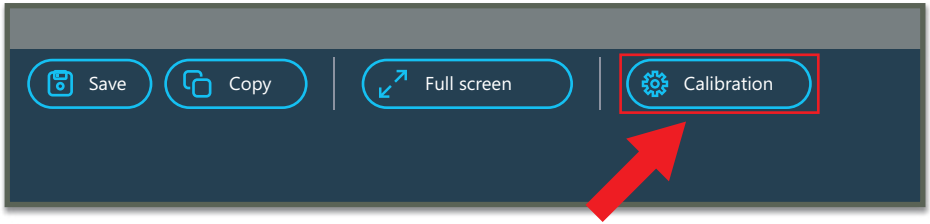

Figure 6

NOTICE

The measurement functionality of PathoZoom® LiveView is not approved for diagnostic purposes!

- **The calibration panel opens in the right margin of the display** (Figure 7).

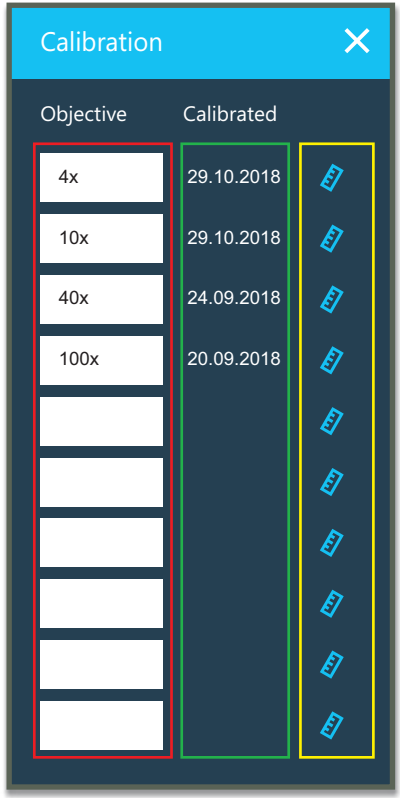

Figure 7

- In the first column (highlighted red), the names of the objectives of your microscope are shown. You can create your own names for the objectives.
- In the second column (green), the dates of the last calibration are shown.
- In the third column (yellow), there are buttons (Figure 8) to calibrate the respective objective.

Figure 8

- Click on the button (Figure 8) of the objective, which you want to calibrate. In this example we start with the objective named "10x".

- The following message will appear, with instructions on how to perform an optimal calibration (Figure 9).

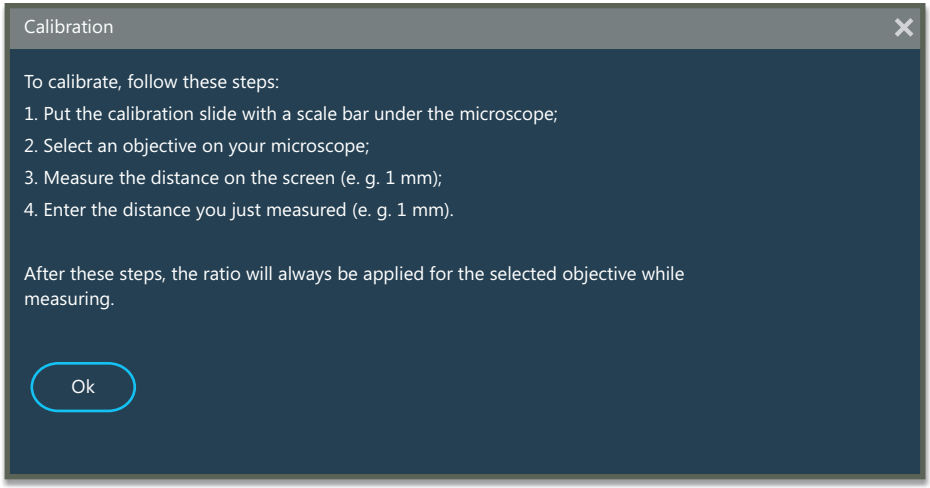

Figure 9

- Click on "Ok" and the message will disappear.

- The calibration slide must be correctly focused before working with it (Figure 10).

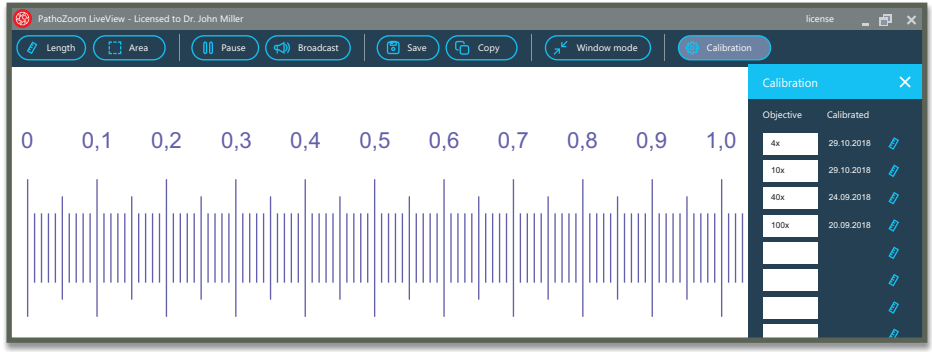

Figure 10

- Click on one of the lines belonging to a visible numerical value, for example, "0.5".

- The mouse pointer must be dragged, creating a line. Click again, when you have reached the end of the distance, e.g. at "1.0".

- Next, a message will appear with the title "calibration". Please enter the correct value of the measured distance (Figure 11). Click again on "Ok" to finish the calibration.
  In our example, we measured 1.0 mm – 0.5 mm = 0.5 mm = 500 µm.

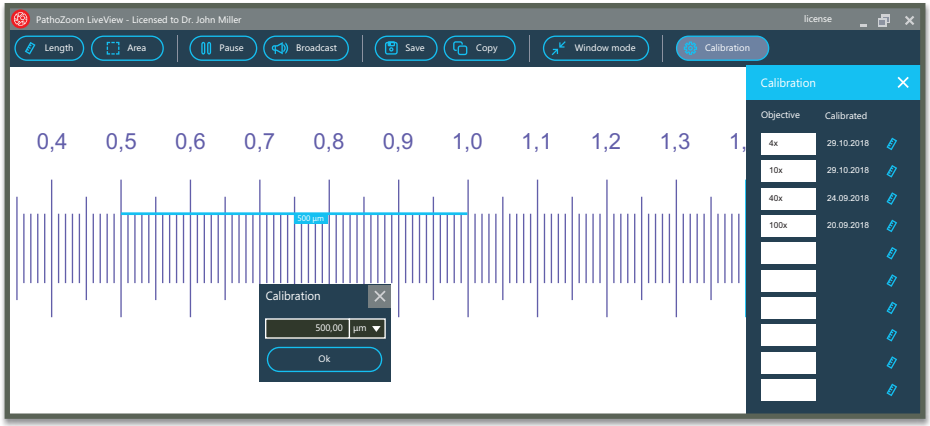

Figure 11

TIP

For an optimal calibration, it is advisable to trace the line through the upper or lower limit of the measurement ruler in the calibration slide (Figure 8).

- If you want to repeat the same calibration, you must first close the message window (Figure 12).

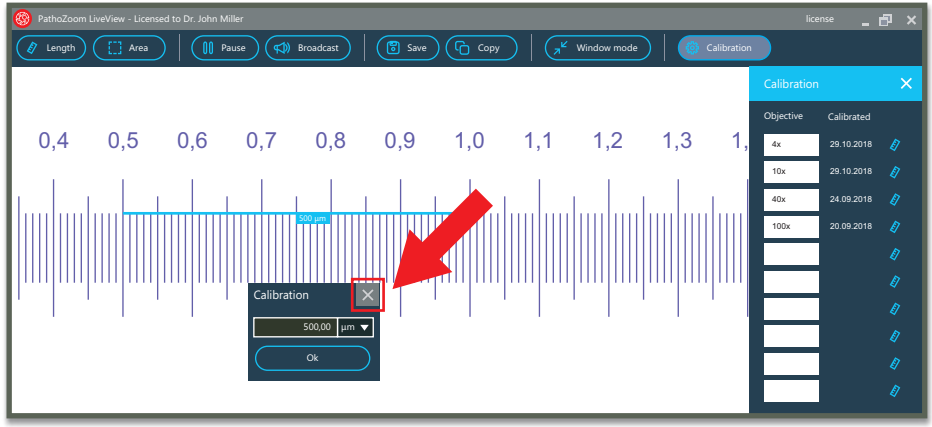

Figure 12

- Click on the button with the "measurement ruler" (Figure 8) of the objective of choice to repeat the process.

>> The desired objective of your microscope's camera has been correctly calibrated.

3. Viewing

3.1. Viewing the Microscope Image

To start viewing the image shown in the microscope, click on the "Start" button located in the main menu at the top edge of the window (Figure 13).
When the cursor is placed over the "Start" button, the message "Start camera capturing" appears.

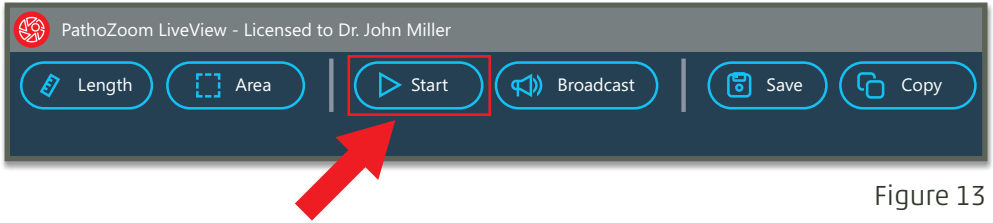

Figure 13

The image of your microscope slide will be displayed (as shown in Figure 14).

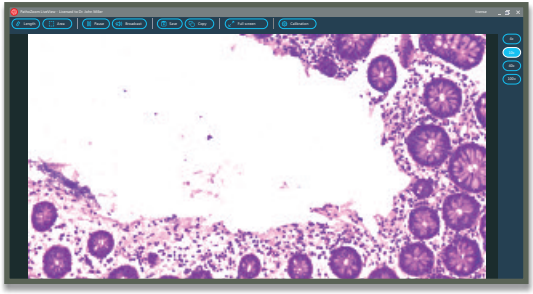

Figure 14

3.2. Full Screen

To activate the full screen mode, click on the "Full screen" button located in the main menu at the top edge of the window (Figure 15).

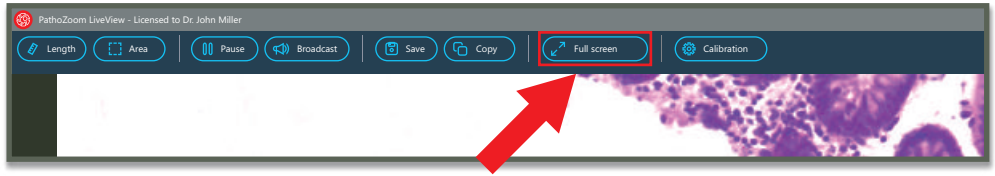

Figure 15

To deactivate the full screen mode and return to the default mode, click on the same button, now called "Window mode" (Figure 16).

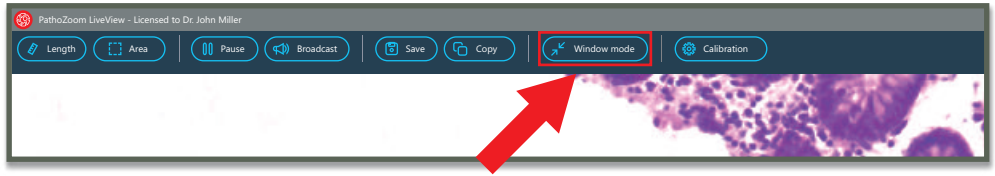

Figure 16

>> The visualization of your microscope image has been successfully achieved.

4. Measurement

Please make sure that a previous calibration has been performed (see section 2 "*Calibration*") and that the microscope camera corresponds to the lens selected in the program (Figure 7). To activate the "Measurement" button, it is necessary to start viewing the image (look at section 3.1 "*View the Microscope*").

NOTICE

The measurement functionality of PathoZoom® LiveView is not approved for diagnostic purposes!

4.1. Calculating Distances

Click on the "Length" button, located in the main menu at the top edge of the window (Figure 17). When the cursor is placed over the "Length" button, the message "Measure Length" appears.

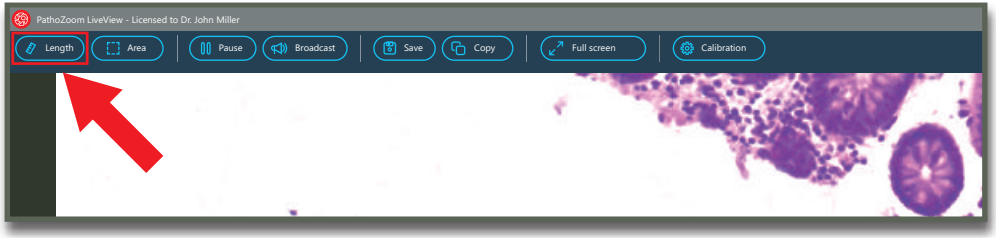

Figure 17

- Click on a point "A" of the image.
- Drag the mouse to a point "B" of the image, and click once more (Figure 18).

Figure 18

- To remove the measure performed, whether the measurement has been made successfully or if a mistake has been made, you must click again anywhere in the image.

4.2. Calculating Areas

Click on the "Area" button, located in the main menu at the top edge of the window (Figure 19). When the cursor is placed over the "Area" button, the message "Measure Area" appears.

Figure 19

- Click on different points that constitute the area (Figure 20).

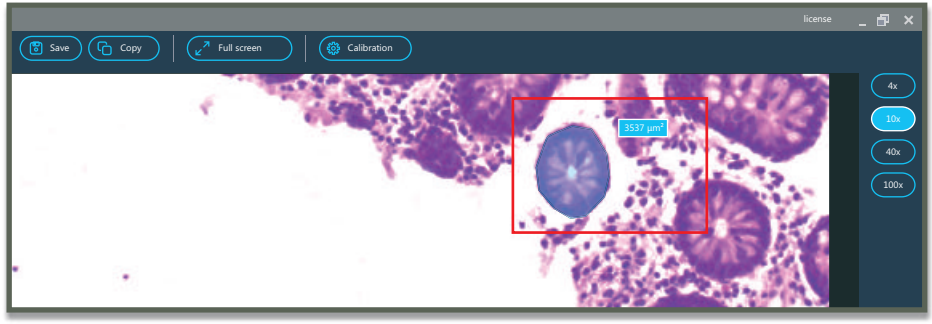

Figure 20

- The last point must be double-clicked, and the measurement will be finished.

>> Measurement tools have been successfully used.

5. Broadcasting

With the broadcasting function, you can a the live image from your microscope over the internet to multiple colleagues. The recipients only need a browser to view the image. They can interact by drawing on the screen; in this way collaboration on one slide becomes very simple.

5.1. Starting a Broadcast session

Click on the "Broadcast" button, located in the main menu at the upper right edge of the window (Figure 21). A new "Broadcast" window will appear.

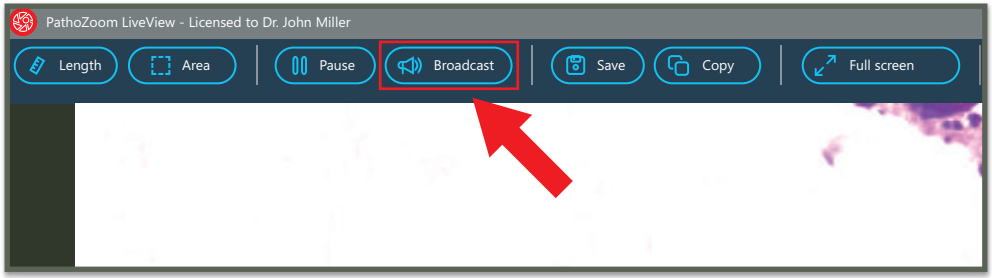

Figure 21

- Click on the "Start" button located in the new window (Figure 22).

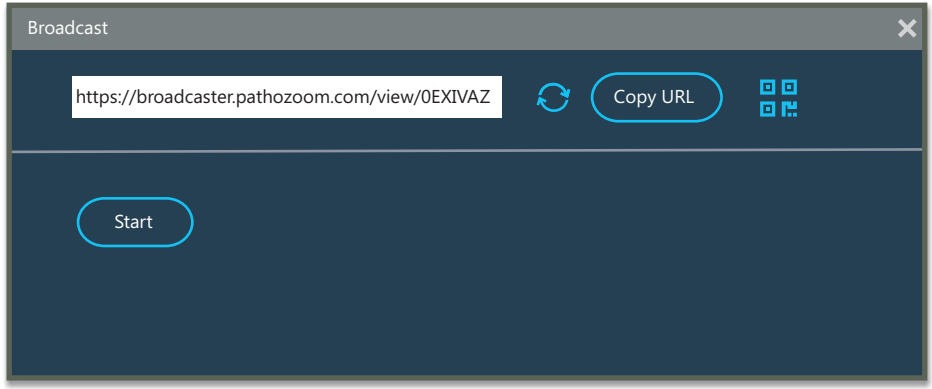

Figure 22

- The "Start" button in the new window will turn red and become the "Stop" button (Figure 23).

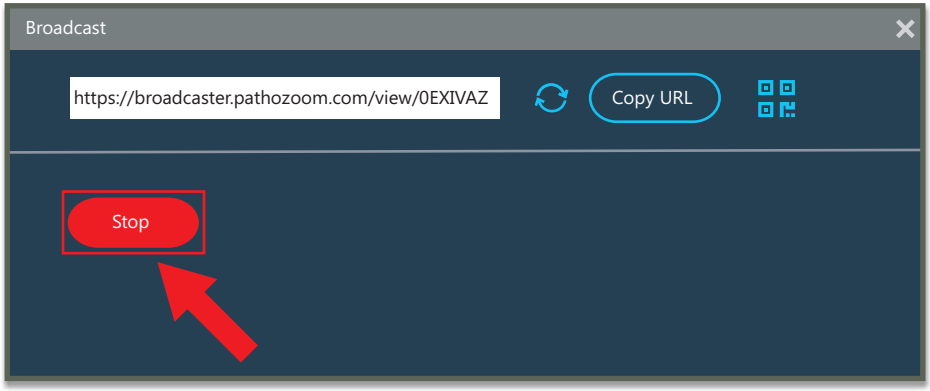

Figure 23

- In addition, the "Broadcast" button in the main menu will also turn red (Figure 24). This will indicate that the capture of the image, i.e. the broadcast, is being transmitted.

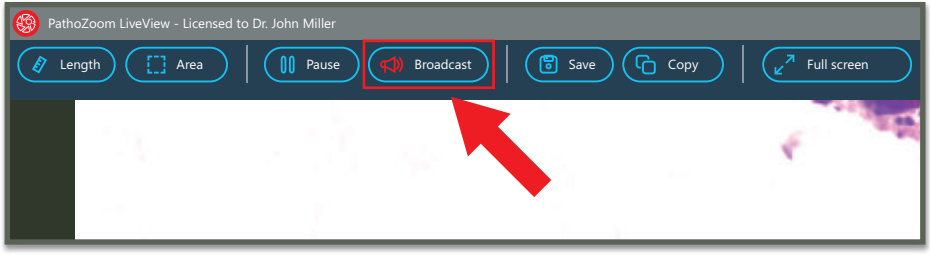

Figure 24

5.2. Sharing Views with Colleagues

After clicking the "Broadcast" button, located in the main menu at the top edge of the window, the "Broadcast window" will appear with various elements that, from left to right, are:

- A "Refresh" button to change the link mentioned above – only necessary to make sure that recent recipients can no longer log into this channel (Figure 25).
- A "Copy URL" icon to copy the above link (Figure 26).
- A "QR-code" button which will show a QR-code corresponding to your broadcast channel (Figure 27 and Figure 28).

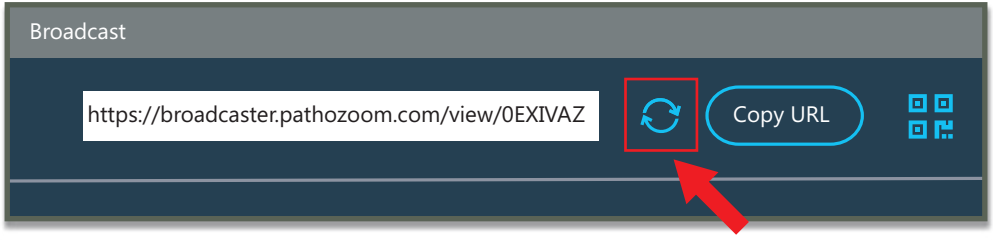

Figure 25

Figure 26

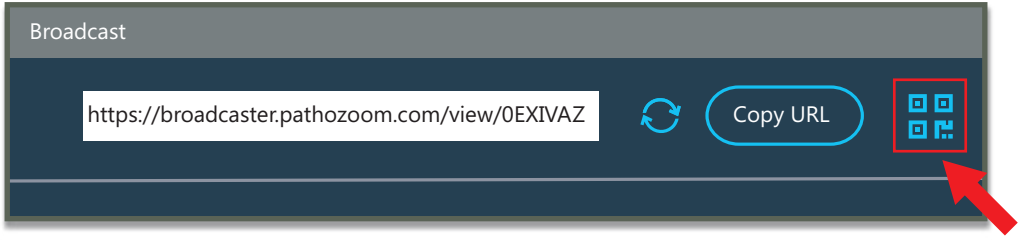

Figure 27

Figure 28

You can send this link or code to colleagues who wish to participate in the live session.

Recipients should copy the link into their browser (Figure 29) or read the QR-code using their mobile phone's camera (Figure 28).

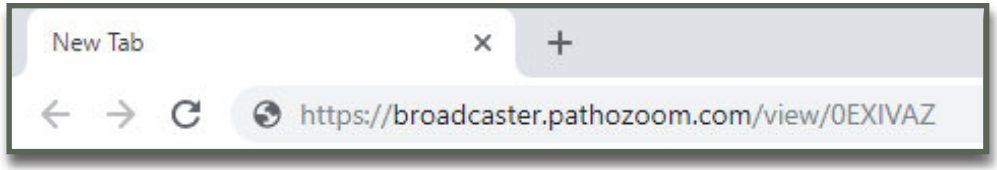

Figure 29

>> The Broadcast has been successfully carried out.

5.3. During Broadcasting: What Is Displayed

The recipients of your broadcast will only see the image recorded by the camera, that is, the user will not be able to see the main menu or any other parts of the program.

As for the measurement tools, the user will only see the measurements when they are complete and will not see them they are in progress (Figure 30).

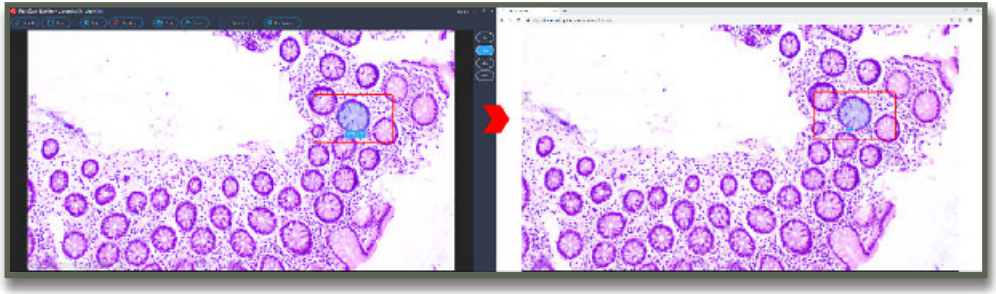

Figure 30

Visiting users will also be able to draw a line which will be visible to all participants and which will automatically disappear after a few seconds (Figure 31).

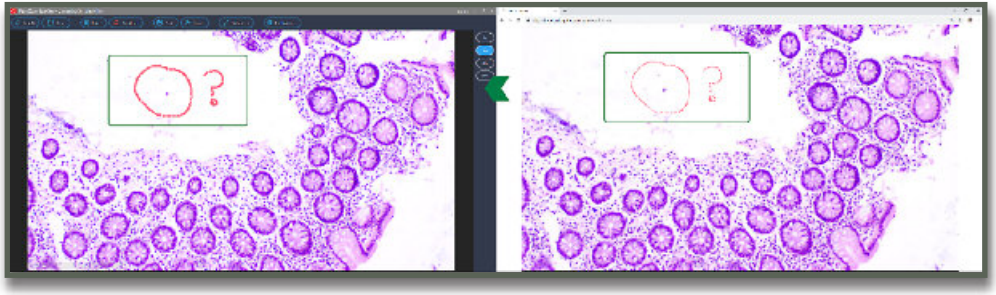

Figure 31

ATTENTION

With this option, you will be able to restart the broadcast for all users without having to copy the link again by repeating the sequence shown in section 3.1 "Viewing the Microscope".

5.4. Canceling a Broadcast

- To stop the broadcast, click on the "Broadcast" button, which is now red (Figure 24). It is located in the main menu at the top edge of the window.

- Click on the "Stop" button in the popup Broadcast window (Figure 23).

After this, the screen will appear frozen for those users who were previously able to see the image.

6. Copying and Saving Images

6.1. Copying an Image

When the cursor is placed on the "Copy" button, located in the main menu at the edge of the window (Figure 32), the message "copy camera shot to clipboard" will appear. Click on the "Copy" button.

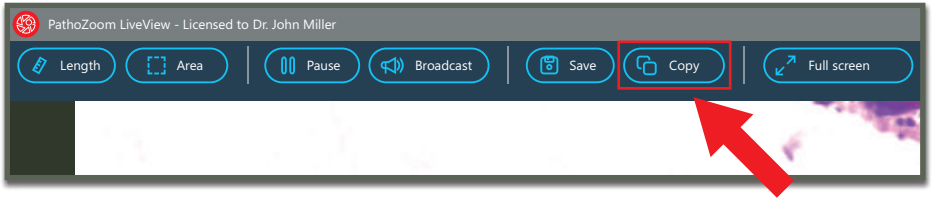

Figure 32

- After the screenshot has been taken, the button changes from "Copy" to "Copied" (Figure 33).

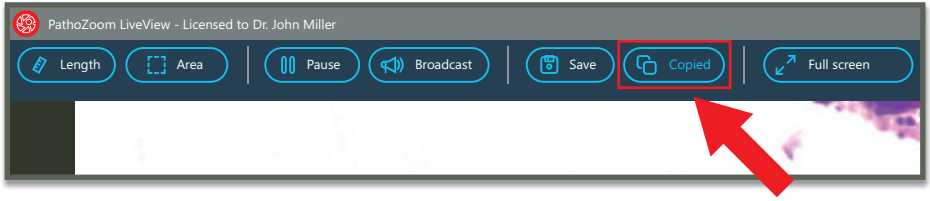

Figure 33

The copied image can be pasted into different applications, e.g. "PowerPoint" (Figure 34).

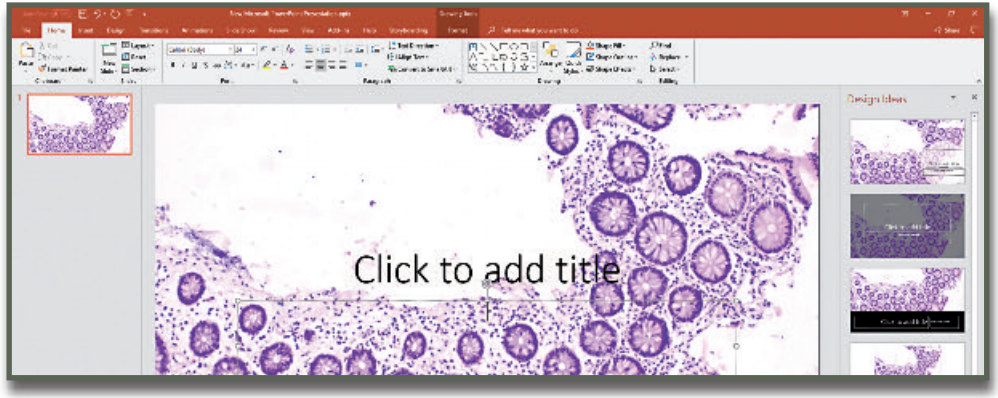

Figure 34

6.2. Saving Screenshots

When the cursor is placed on the "Save" button, which is located in the main menu at the upper right edge of the window (Figure 35), the message "save camera shot as .jpg" appears.

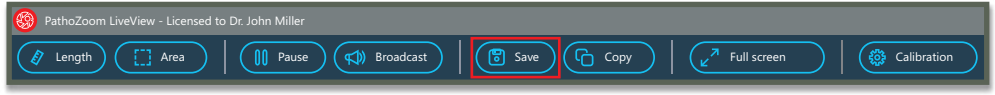

Figure 35

- Click on the "Save" button. A new window named "Save As" will appear (Figure 36).

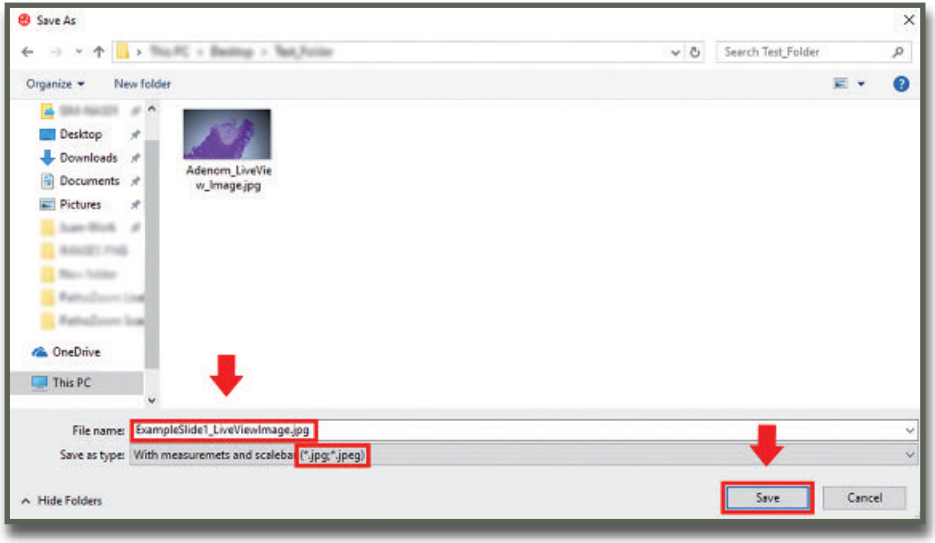

Figure 36

- Choose the location where to save the image. Rename the file if necessary. The default format is ".jpg/.jpeg".

- Click on the "Save" button.

>> The image copying and saving tools have been successfully used.

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