

Workshop Schedule

Introductions

Project 1 views DNA and RNA sequences and their 3D structures.

Project 2 views protein sequences and their 3D structures.

Project 3 compares the sequence of human myoglobin protein with myoglobin sequences from other animals; then views the coding DNA sequence, and codons, alongside the protein.

Project 4 views exons and introns in the *HBB* gene, which is involved in sickle cell anaemia. The genetic mutations linked to this disease is identified by viewing the coding DNA and its protein product in a split-screen view.

The materials to run the workshop can be found on our website at:

<https://www.jalview.org/school-resources>

The aim of the workshop

We would like your help to assess how easily the workbook exercises run in a classroom and hear your personal views on them.

Jalview IT requirements

You will require a desktop or laptop computer with a web browser and internet access to run the practicals. Jalview will launch on a tablet or phone but it does not really work properly on these devices.

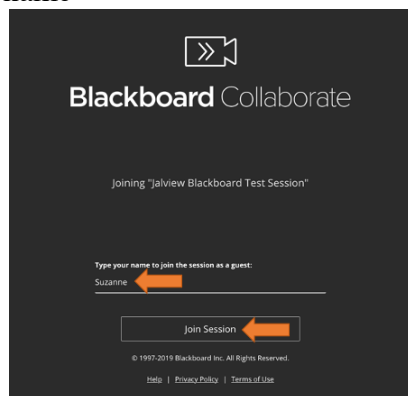
Blackboard Collaborate IT requirements

The easiest way to access Blackboard Collaborate is in a web browser on your computer. However you can also access it on your mobile phone but you will have to download the app.

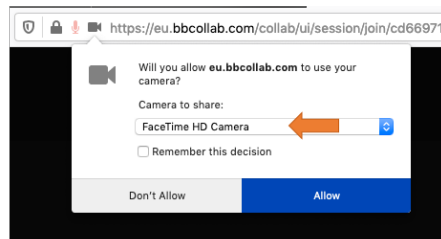


How to Join the Workshop

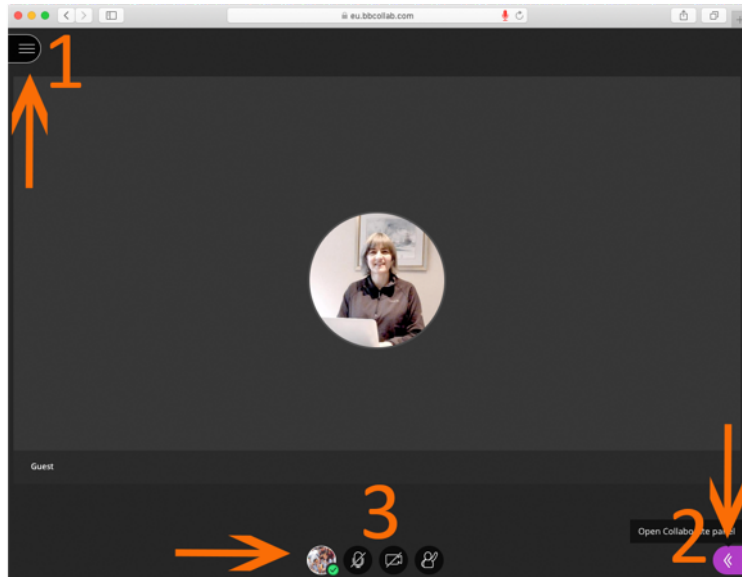
1. You can access the workshop session on your laptop with the guest link that was emailed to you. We recommend that you use a Chrome browser but this isn't essential.
2. You will be asked to give you name



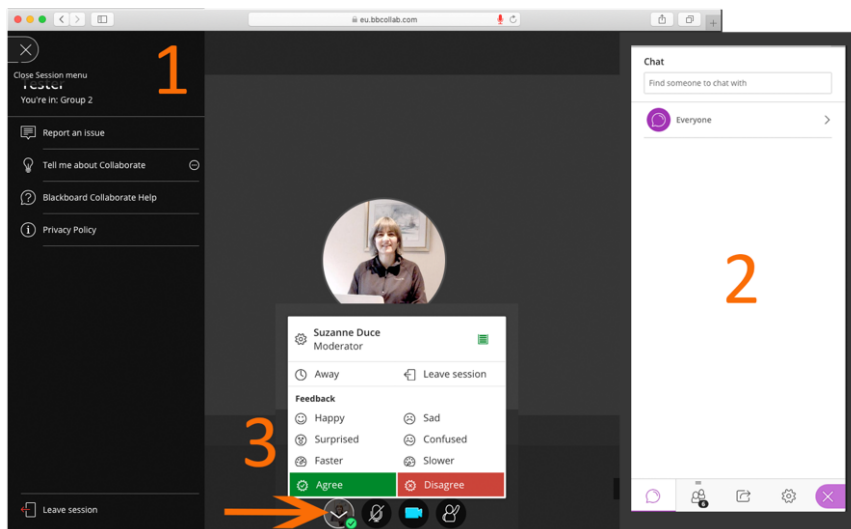
3. Blackboard Collaborate will ask to access your microphone and camera. Access isn't essential but it will hinder communications.



4. The Blackboard Collaborate interface looks like this. There are 3 clickable buttons that open up additional features.



5. **Panel 2** lets you add chat, see everyone's names, move into breakout room, add photo of yourself etc.
Panel 3 lets you toggle video and audio on and off, raise your hand, add emojis and other comments, as well as leave the session.



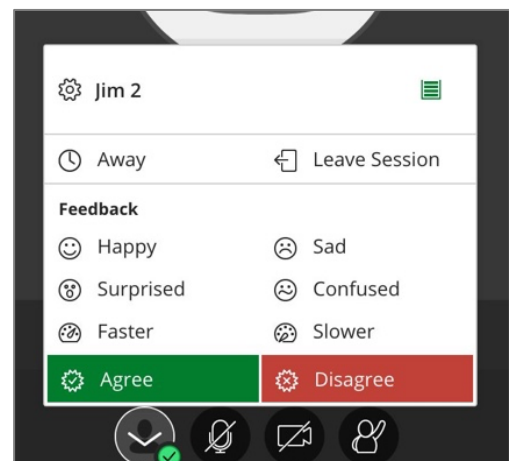
6. If you lose connection and exit the session, then use the link to re-join.

Background Information

Blackboard Collaborate

Using Collaborate. Collaborate allows you to speak to and see others, share your screen (or a specific application), upload files and chat via direct messages and shared chat rooms.

The system allows a participant to 'Raise hand', and to provide different kinds of feedback (smiley, sad, confused, faster, slower, agree, disagree) during lectures and discussions. We encourage you to use these.

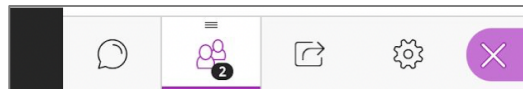


Breakout Rooms. Collaborate provides ‘Breakout Rooms’ where room members can talk and see each other, chat and screen share without disturbing participants in other rooms.

To see the available Breakout rooms, first click on the right hand side menu tab:



The “Attendees” symbol will open the attendee list:



Breakout rooms are shown in the Attendee list section of the right hand panel.

To move between rooms, click the icon with a green arrow to the right of the room you want to enter.



What is Jalview

Jalview is free-to-use computer software developed at the University of Dundee. It is designed to assist research scientists to visualise and analyse DNA, RNA and proteins. It uses an interactive multi-window interface for viewing sequences, alignments, annotations and three-dimensional structures. Jalview can read files directly from public biological databases and has a number of analysis tools for aligning sequences, producing trees, measuring similarities and comparing structures.

If you require further information, we have a “Getting started using the Visualising DNA, RNA & Proteins in Jalview workbook” [video](#) and “What is Jalview” [video](#) on our [Jalview Online Training YouTube channel](#) that can be accessed from the Jalview’s ‘Resources for Schools’ webpage (<http://www.jalview.org/school-resources>).

Using the Workbook

The workbook, the links for launching *JalviewJS* to run the exercises, as well as additional resources such as videos are available at the Jalview’s School webpage:

<http://www.jalview.org/school-resources>

To get started:

- (i) Open Jalview’s School webpage.
- (ii) Click on the ‘View the School Workbook’ link in Section 1 to open the booklet in an adjacent window, or download the pdf depending on the browser.
- (iii) Follow the instructions in the workbook, the links in Section 2 start each exercise by launching *JalviewJS* and loading the sequences.