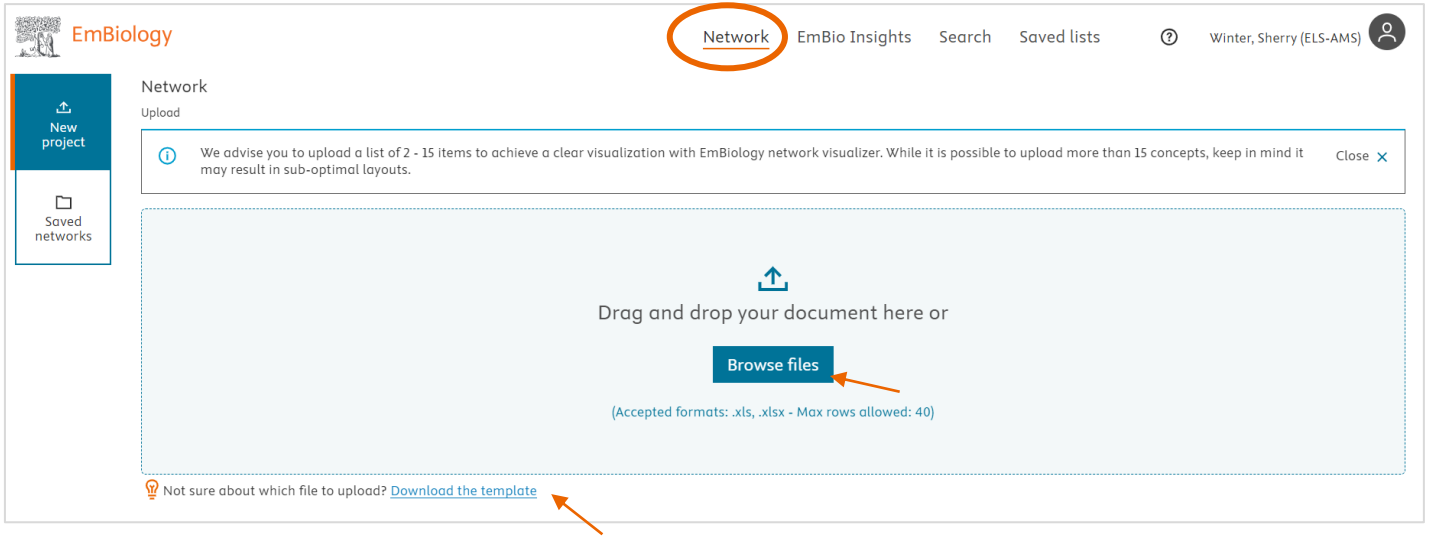
EmBiology Interaction Network guide

May 2024

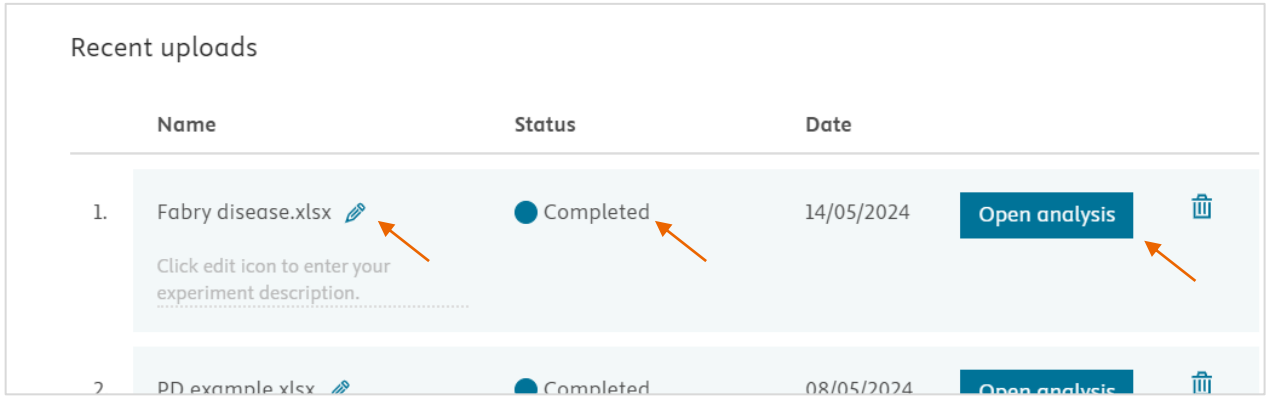
Upload an Excel file of entities you'd like to see in an Interaction Network



- The list of entities should be saved in a single column (column A in the Excel sheet). The list can include any entity type and is not restricted to proteins
- Download a template to see an example

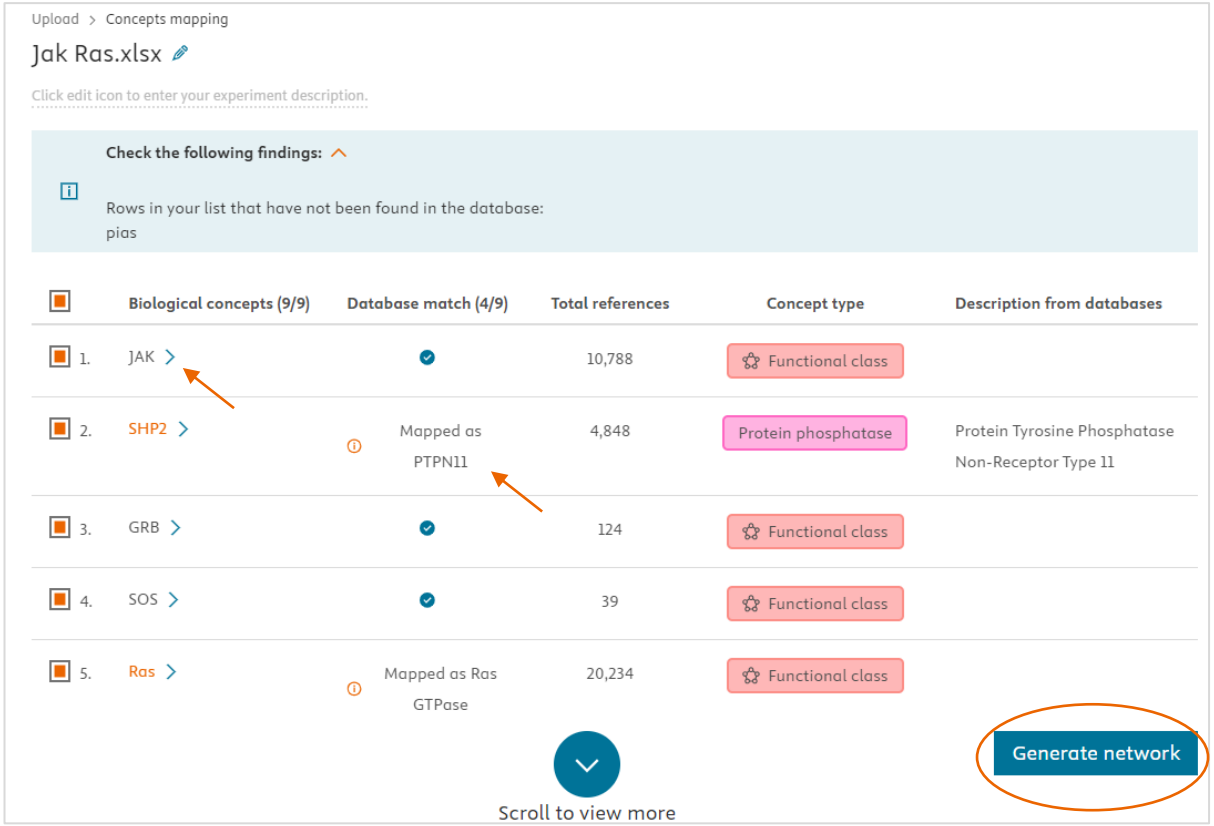
- Drag/drop your Excel file or Browse files to upload
- A list of up to 15 items gives the best visualisation

File upload and management



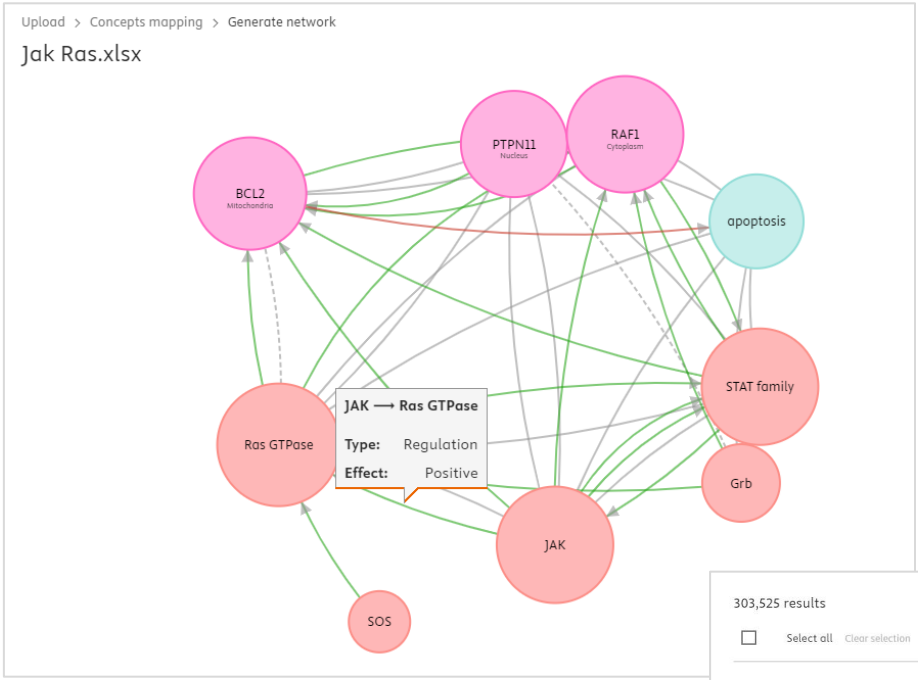
- Your file will be uploaded, and entities mapped to EmBiology preferred terms
- The name of the file can be edited, and a description of the file can be added by clicking the pencil icon
- Once the Status is ‘Completed’, click on Open analysis

Concept mapping shows details about entities in the file

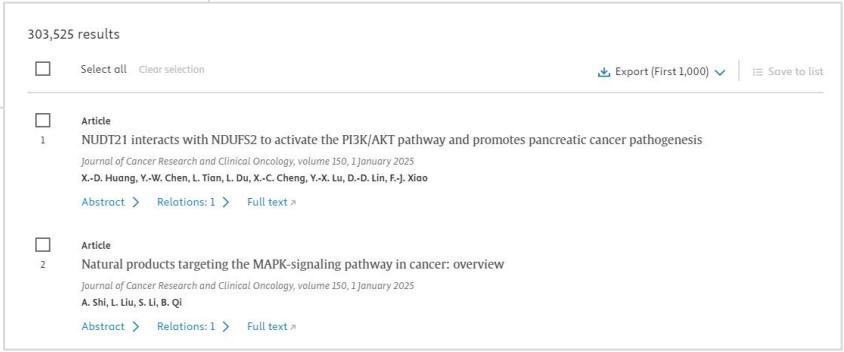


- Duplicates and terms that can't be matched with proteins found in the EmBiology database are shown in a header
- In some cases, the entity name in the uploaded list is a synonym of the preferred term and will be mapped to the preferred term. This is indicated in the Database match column
- Total number of references refers to the number of articles/clinical trials where the protein is mentioned
- A short description of protein entities is shown in the overview – for a more complete description, click on the > symbol beside the protein name
- Once you have reviewed the entities and are ready to proceed, click 'Generate network'

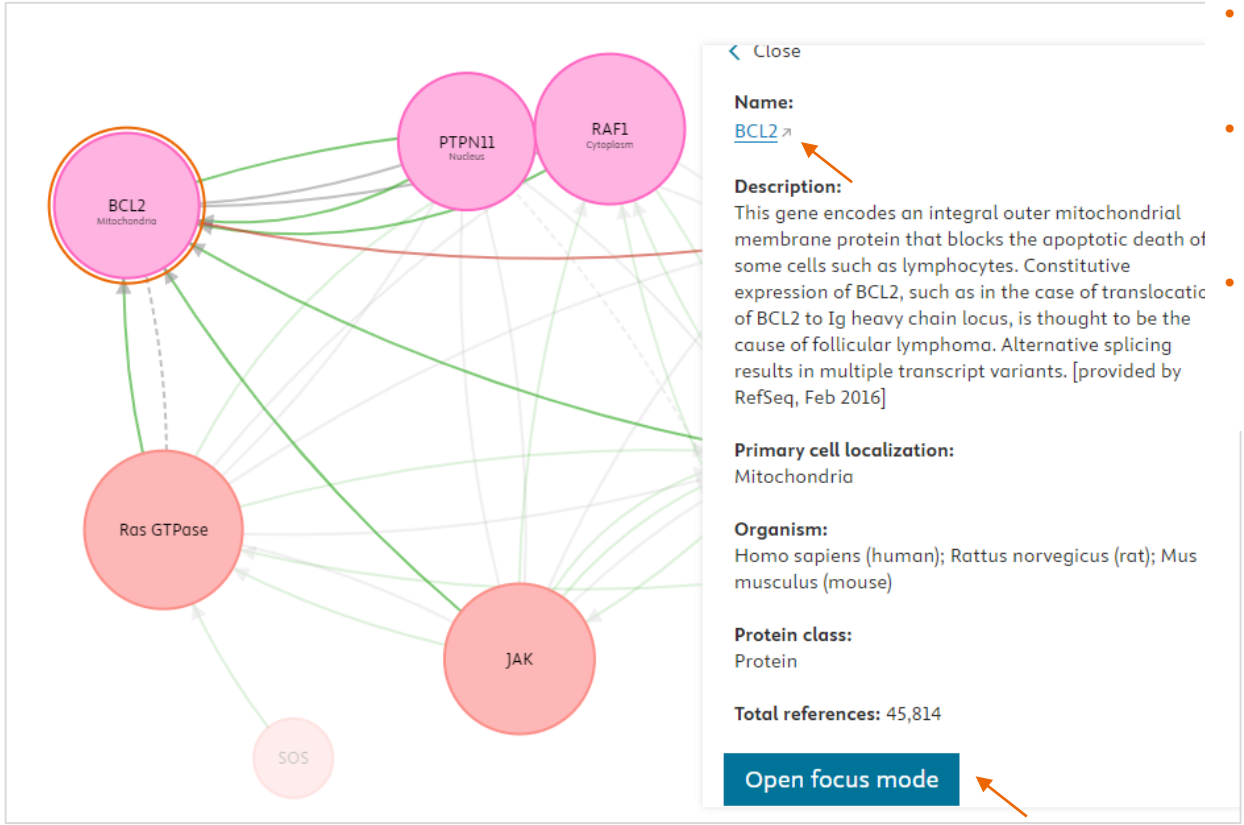
View the Network and relationships between entities



- An Interaction Network will be shown, depicting all relationships between entities
- Click on a relation line to see details about the relationship
- The list of articles providing evidence about each relation is shown below the visual –
  - As with all EmBiology article lists, abstracts and relations for each article are shown, individual articles can be saved, and up to 1000 results can be exported

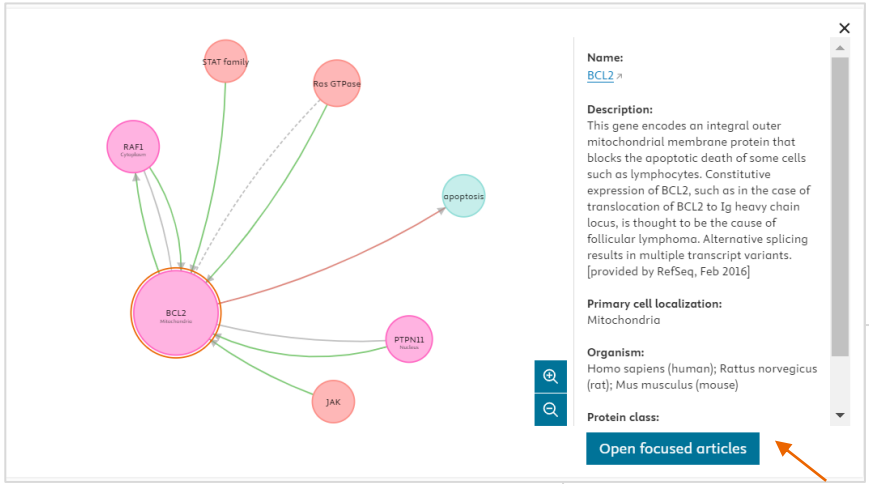


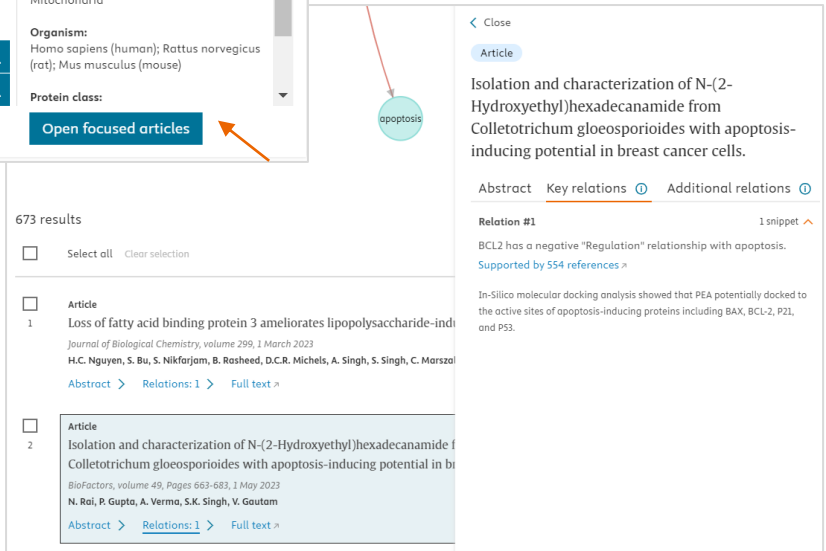
Click on an entity to see more information and open ‘Focus mode’



- Clicking on an entity name opens a side panel with more information
- Clicking the entity name in the side panel opens EmBiology Search with that entity as the search term
- Open focus mode to look more closely at BCL2, it’s immediate relationships (in this network) and the supporting literature

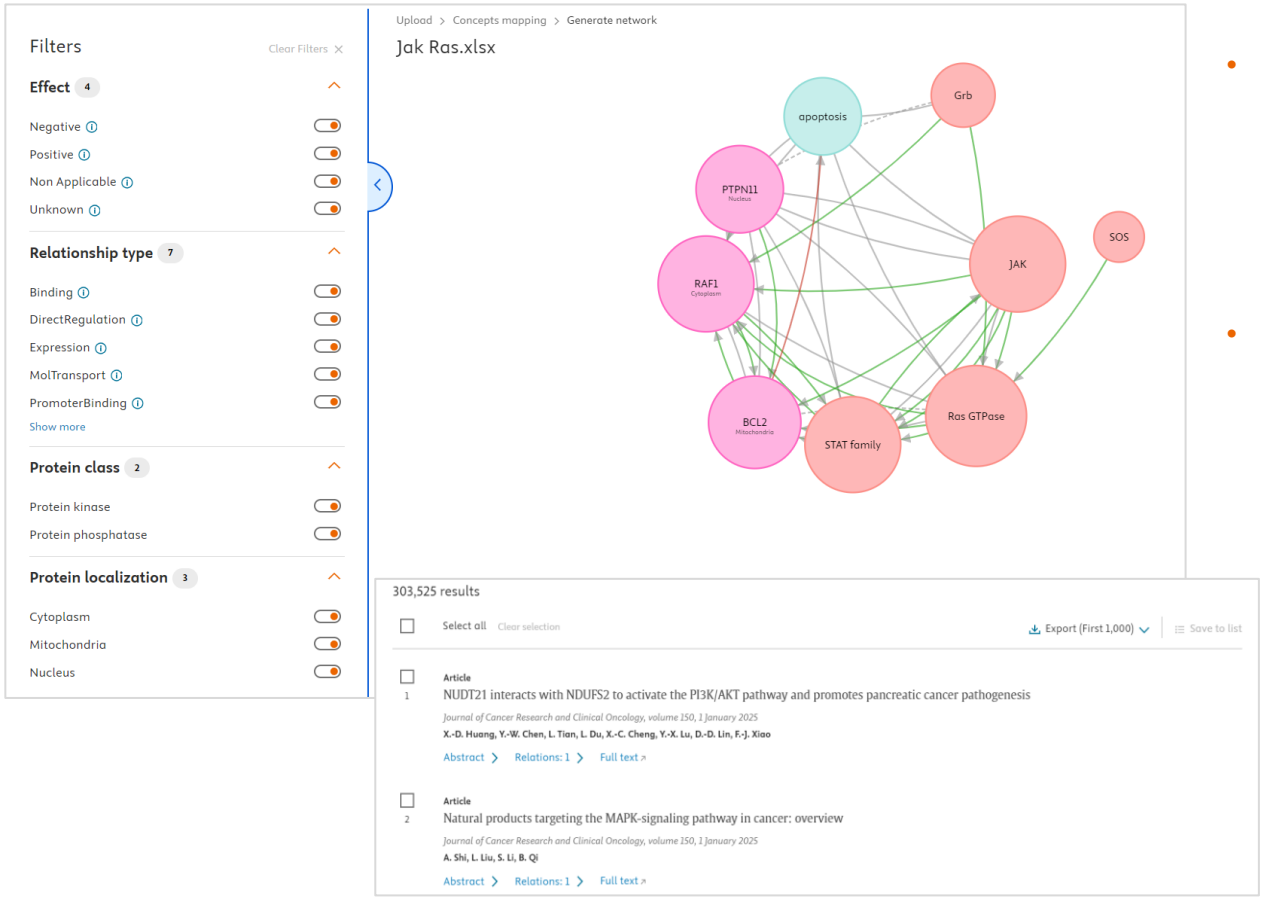
Zoom in on specific entities and their relationships in the network with Focus mode





- Clicking ‘Open focused mode’ filters the list of references to those containing relationships from the focused view.
- To go back to the full list of articles, click ‘closed focus mode’ (not shown)

Coming in June – additional filtering options



- De-selecting a filter will cause the affected entity/relationship to be greyed out and the references list to update (removing references that supported the relationship(s) removed by filters from the list)
- Available filters will include:
  - Publication filters (# references supporting a relationship and year)
  - Effect
  - Relationship type
  - Protein class
  - Protein localisation filters