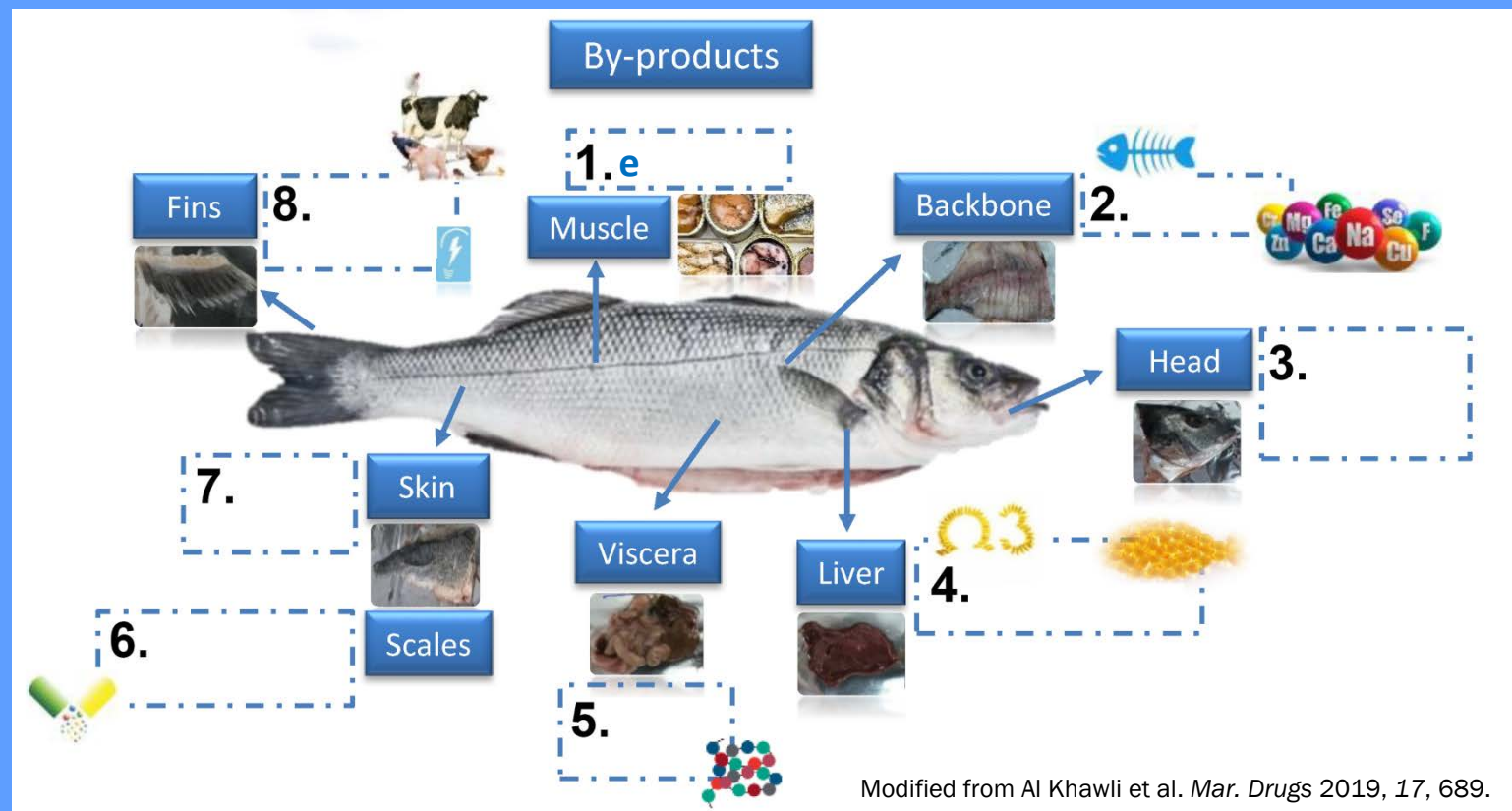


Aquaculture biomass. Part II: BY-PRODUCTS FROM FISH

Activity 1. The diagram shows the by-products that we can produce from fish side-stream biomass (1–8). Complete the diagram with the missing by-products (a–h).

- | | |
|----|-----------------------------------|
| a. | Animal feed, energy |
| b. | Protein hydrolysate, PUFA |
| c. | Collagen, gelatin |
| d. | Fish oil, food supplements |
| e. | Fish products |
| f. | Proteins, peptides |
| g. | Minerals |
| h. | Chitin, coatings, pharmaceuticals |





Activity 2. According to the video, what are 6 ways in which omega-3 fatty acids are good for us?

Number the benefits in the order in which they appear in the video.

☐ Good for your hair, skin and nails



☐ Good for your eyes



☐ Good for your brain



☐ Can help you sleep better



☒ 1 Good for your heart



☐ Can potentially help prevent some types of cancer



Activity 3. There are three main types of processed fish protein. Look at the definitions below and fill in the gaps with words from the box. Be careful! You don't need to use all the words.

health benefits

polyunsaturated fatty acids (PUFAs)

fish hydrolysates

bioactive fish peptides

fish protein concentrates (FPC)

omega-3 fatty acids



1. _____ are powder preparations where the protein is more concentrated than in the original fish source.
2. _____ are proteins that are enzymatically broken down into smaller peptides.
3. _____ are specific protein fragments that have a positive effect on body functions and are good for your health.
4. Processed fish proteins have many _____. They have a high nutritional value and can act as antioxidants and antimicrobials, can control blood pressure and modulate the immune system.

