

Mohamed Khider University (Department of SNV)
General Immunology – Practical Session (TD)
2nd Year LMD (2019/2020)

TD Series 2: Generalities

Exercise 1.

Complete the blanks in the following text with the following words:

Antigens, transplant, emergency, allergies, immune, leukocytes, macrophages, antibodies, immune, lymphocytes.

Our system is made up of various cells, called white blood cells or Among these cells, some are involved in specific immune responses: the There are two types: B lymphocytes produce, T lymphocytes destroy Phagocytosis is carried out by different cells, the It is a, non-specific reaction. Essential, the immune defenses can also be responsible for or for organ transplant rejections.

Exercise 2.

To maintain its integrity, the body develops a set of reactions that allow it to defend against microbial aggressions and ensure its immunity. Several organs, cells, and substances participate in the course of the immune response.

- Specify the type of immune response to which phagocytosis belongs.
 - Recall the different steps of phagocytosis.
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Exercise 3.

Complete the following figures:

Figure 1:

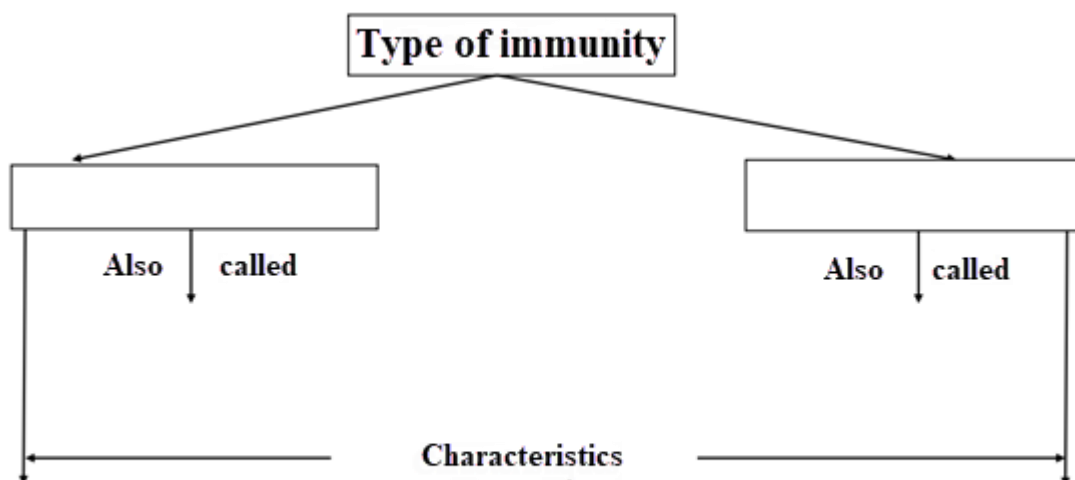


Figure 2:

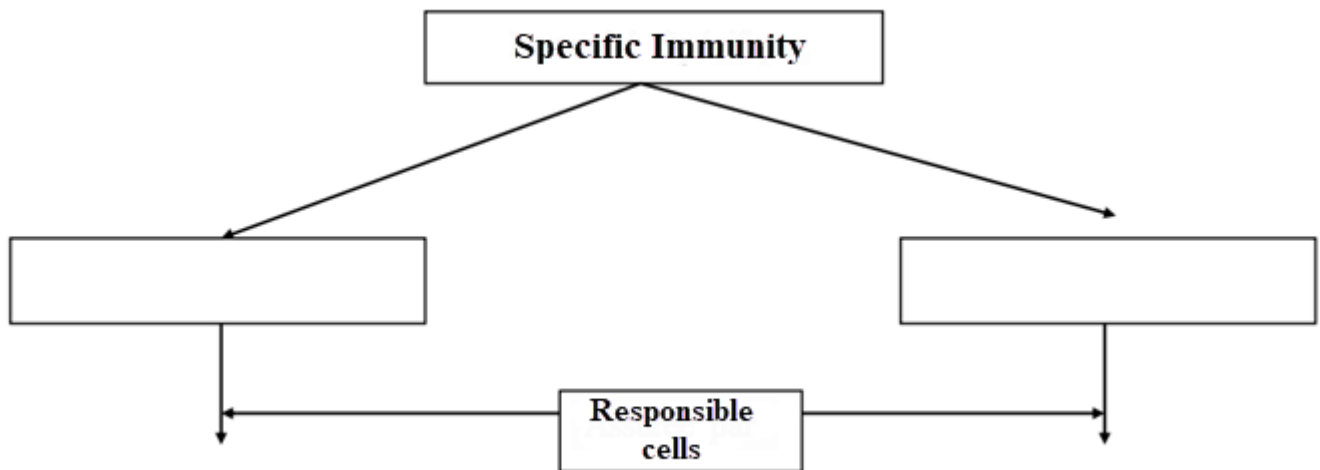
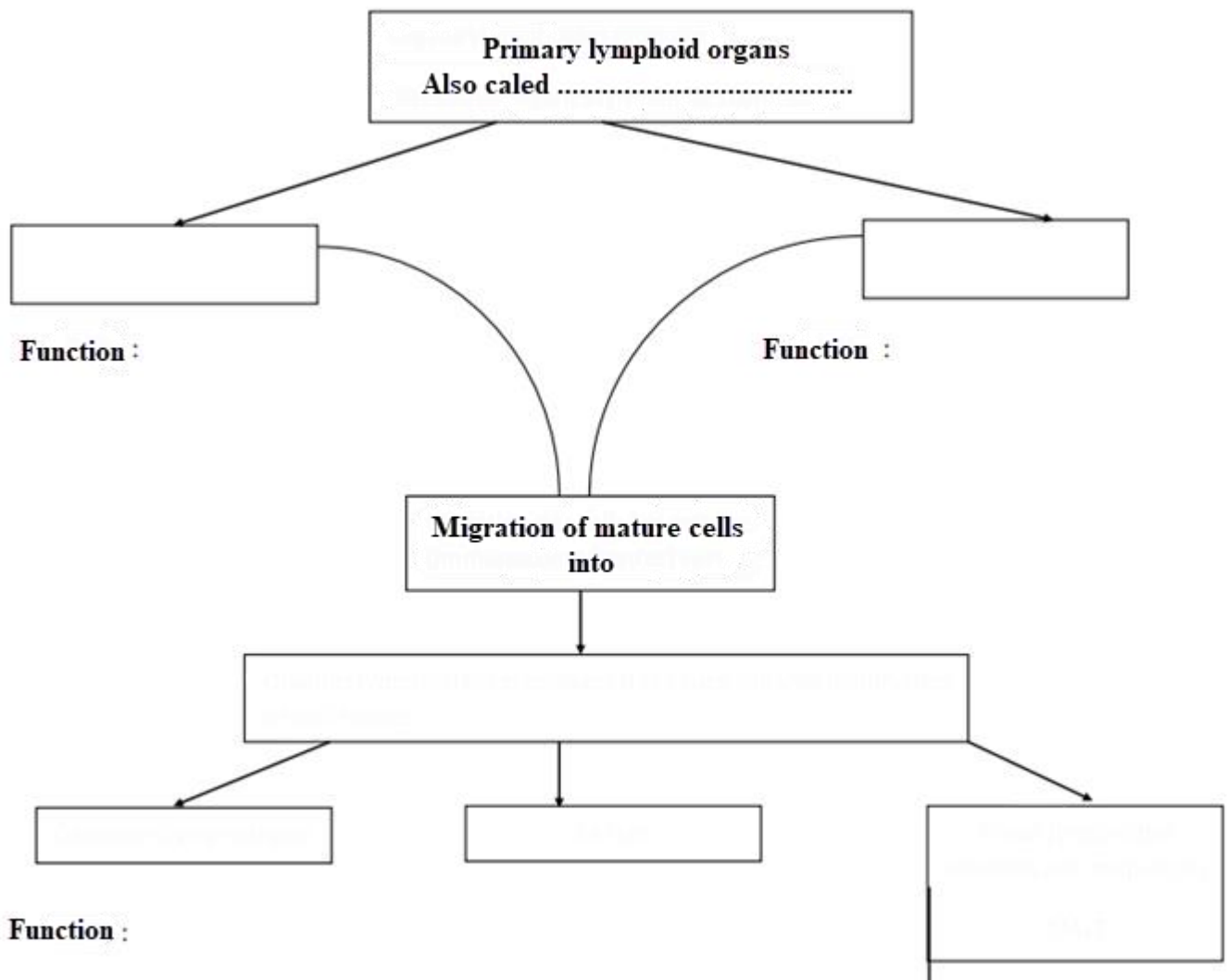


Figure 3:



Exercise 4.

Lymph nodes represent an important “line of defense” for the body, especially against microbial attacks.

- In case of a wound infection in the lower limb, swelling is observed in the lymph nodes located in the groin area.
- Similarly, in case of infection in the upper limbs, it is the armpit lymph nodes that swell and become painful.

Explain this manifestation of swelling and recall the role of lymph nodes.

Exercise 5.

Interpret the results shown in the following table for each experiment:

Experiments	Results
Removal of the thymus from a young mouse followed by a rat skin graft	The skin is not rejected
Removal of the thymus from a young mouse followed by injection of antigen X	Generally no anti-X antibodies
Removal of the bursa of Fabricius followed by a graft from another bird	Rapid rejection of the graft
Removal of the bursa of Fabricius followed by injection of antigen X	No production of anti-X antibodies

Exercise 6+.

SRBCs (Sheep Red Blood Cells) are used as antigens to induce an immune response.

A: Why is there agglutination? What does irradiation cause?

B: Interpret the results.

