

## A Brief Note on Blood Banking and Serology

**Boris G Vainer\***

Department of Semiconductor Physics SB RAS, Novosibirsk State University, Russia

**\*Corresponding Author:** Boris G Vainer, Department of Semiconductor Physics SB RAS, Novosibirsk State University, Russia, E-Mail: borisvainer@gmail.com

**Received date:** July 07, 2021; **Accepted date:** July 21, 2021; **Published date:** July 28, 2021

Citation: Vainer BV (2021) A Brief Note on Blood Banking and Serology. *Transl Biomed* Vol.12 No.7:185

### Introduction

Blood banking is the process that takes place in the lab to make sure that donated blood, or blood products, are safe before they are used in blood transfusions and other medical procedures. Blood banking includes typing the blood for transfusion and testing for infectious diseases. Most blood donors are volunteers. However, sometimes, a patient may want to donate blood a couple of weeks before undergoing surgery, so that his or her blood is available in case of a blood transfusion.

Donating blood for yourself is called an autologous donation. Volunteer blood donors must pass certain criteria, including the following. Irradiation to blood cells is performed to disable any T-lymphocytes present in the donated blood. Leukocyte-reduced blood has been filtered to remove the white blood cells that contain antibodies that can cause fevers in the recipient of the transfusion. The components of blood are Red blood cells. These cells carry oxygen to the tissues in the body and are commonly used in the treatment of anemia. Platelets they help the blood to clot and are used in the treatment of leukemia and other forms of cancer. White blood cells these cells help to fight infection, and aid in the immune process. Plasma The watery, liquid part of the blood in which the red blood cells, white blood cells, and platelets are suspended. Plasma is needed to carry the many parts of the blood through the bloodstream. Plasma serves many functions, including the following: Helps to maintain blood pressure, Provides proteins for blood clotting, Balances the levels of sodium and potassium, Cryoprecipitate

AHF are The portion of the plasma that contains clotting factors that help to control bleeding.

Albumin, immune globulins, and clotting factor concentrates may also be separated and processed for transfusions. A blood bank is a place where blood is collected and stored before it is used for transfusions. Blood banking takes place in the lab. This is to make sure that donated blood and blood products are safe before they are used. Blood banking also determines the blood type. The blood is also tested for infectious disease. Each unit of blood is broken down into components. These are red blood cells, plasma, cryoprecipitated AHF (cryo), a white blood cell called a granulocyte, and platelets. One unit of whole blood and its parts may be transfused to several people. Each person may have a different need. Blood banking refers to the process of collecting, separating, and storing blood.

The first U.S. blood bank was established in 1936. Today, blood banks collect blood and separate it into its various components so they can be used most effectively according to the needs of the patient. Red blood cells carry oxygen, platelets help the blood clot, and plasma has specific proteins that allow proper regulation of coagulation and healing. Although research has yielded drugs that help people's bone marrow produce new blood cells more rapidly, the body's response time can still take weeks, thus donated blood remains an important and more immediate life-saving resource. Bloodletting was based on an ancient system of medicine in which blood and other bodily fluid were considered to be "humors," the proper balance of which maintained health.