Introduction to Blood

Across

1. He discovered the ABO blood type system.
5. A relatively large type of blood cell that transports oxygen from the lungs to all of the living tissues of the body and carries away carbon dioxide. It is also called a red cell.
12. An essential fluid in our bodies that transports oxygen and nutrients to our cells and gets rid of carbon dioxide and other waste products. It is a highly specialized tissue composed of many different kinds of components produced in bone marrow.
13. The names given to the two main antigens responsible for ABO blood types. These antigens provide the signature for blood types.
14. A kind of protein produced by the body to identify and neutralize or destroy alien antigens by binding to them. These proteins are involved in the rejection of mismatched blood transfusions and organ transplants.
16. The gas transporting protein molecule that normally makes up 95% of the volume of red cells in blood. The color of blood is primarily due to these molecules when they are chemically bound to oxygen.
17. The term for people who can receive blood transfusions from anyone, regardless of the donor’s ABO type. The blood of these fortunate people does not contain antibodies to reject the A and B antigens because the surface of their red blood cells have both of these antigens.

Down

2. A kind of relatively large molecule found on the surface of red blood cells. These molecules provide the specific signature or identity to blood—i.e., the blood type. When alien forms of these molecules are introduced into the body via a transfusion of the wrong type of blood, they stimulate the production or mobilization of other molecules to get rid of the alien blood.
3. A type of blood cell that coagulates and clots blood when there is an injury to a blood vessel. It is also called a platelet.
4. A serum containing anti-Rh+ antibodies given to women at high risk for having a baby with a life-threatening blood type incompatibility problem.
6. The number of principle Rh blood types.
7. A blood disease of fetuses and newborn infants caused by a mother-fetus Rh blood type incompatibility.
8. The term for people who can donate blood to anyone without the recipients’ blood rejecting it because of ABO type incompatibility. These people have type O blood. Their blood is not rejected by other types of blood because it does not normally have A and B antigens that could potentially mark it as being alien.
9. The clumping together of red cells in blood as a result of antibodies attaching to antigens on the surface of the cells. This occurs when blood of different types is mixed together.
10. A kind of blood cell that exists in variable numbers and types but makes up a very small part of human blood volume. Some of these cells provide a physiological defense against infection. As a result, their numbers increase when the body is under attack by bacteria and viruses. It is also called a white cell.
11. The relatively clear liquid medium in blood which carries the red cells, white cells, and platelets. Most of blood’s volume is made up of this liquid.
15. The number of ABO blood types.
16. The name of the system of over 100 antigens on the surface of human body tissue cells that can be recognized by some kinds of white blood cells and potentially lead to the rejection of these tissues if they are alien.