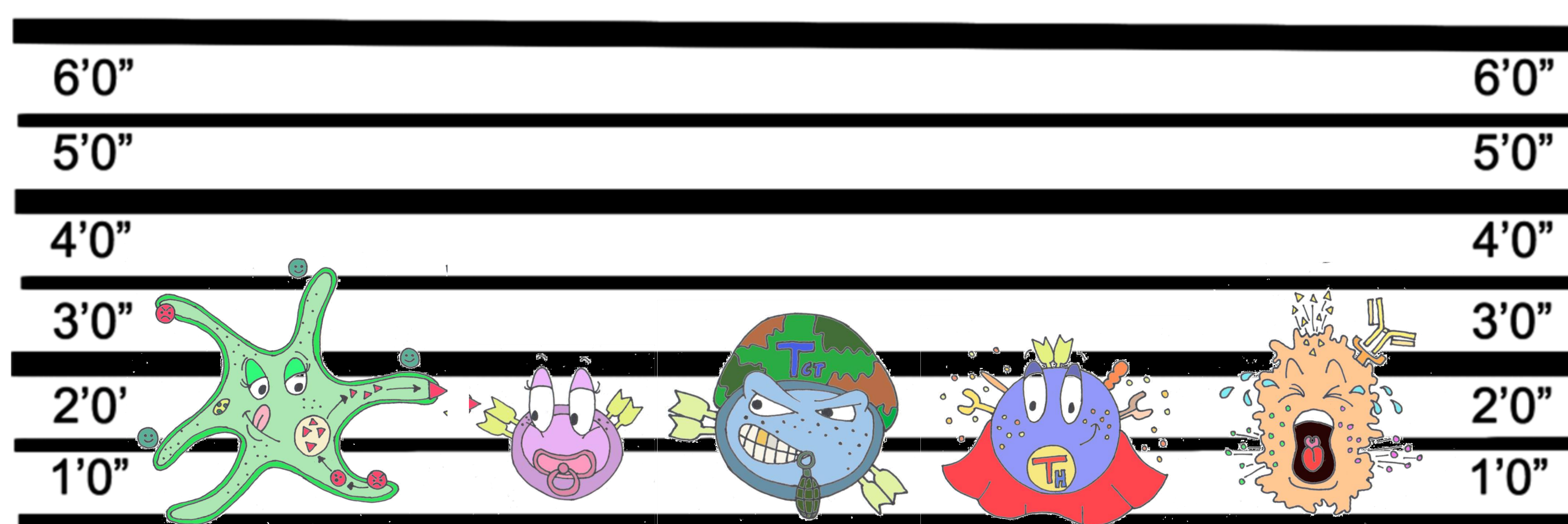


FLOW CYTOMETRY: CELL ID KIT

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There are thousands of cell types that make up tissues in the human body. These cells are not only important in the day-to-day functioning of a healthy body but also in various diseases. The type and number of different cells can inform many things including diagnosis, cause and progression of a disease.

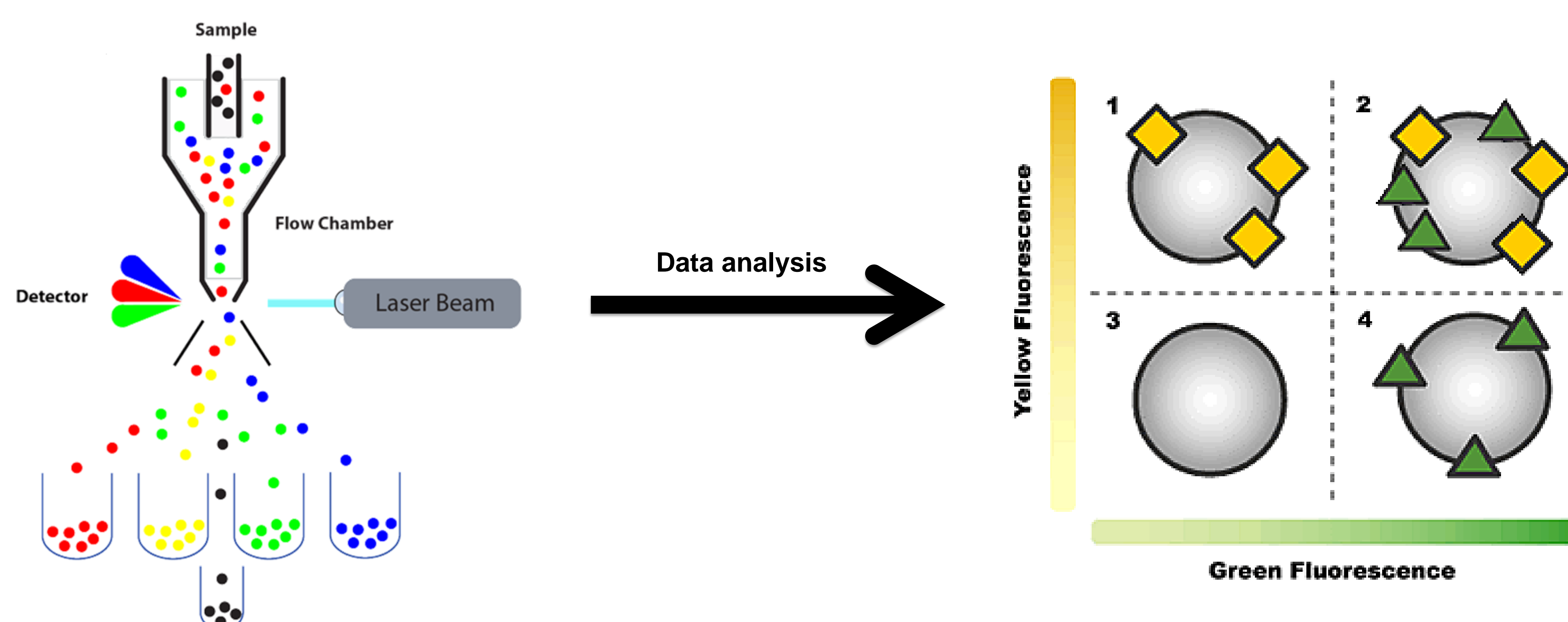
Who dunnit...?



There are thousands of types of cells in a blood sample. These can be identified by using a laser-based technology called **flow cytometry**.

How Flow Cytometry Works

In order to identify different cell types, cells are labeled with antibodies that can only bind to a specific type of cell. This antibody also has a fluorochrome, which when hit with light becomes excited and emits a color. So after cells are labeled with antibodies, they go through a flow cytometer very quickly, up to 1000/second. A laser hits each cell as it passes through a chamber. The way the light bounces off each cell gives information on how big and bumpy the surface of the cell is. The color of the fluorochrome on the labeled cell also helps identify the cell. The data from the flow cytometer is processed to show the number of each type of cell. As science and technology has advanced, we are now able to identify more than twelve colors in a sample.



This technology has been vital in research. Particularly within arthritis research where it has allowed us to identify rare types of cells which play an important role in the disease.