



## 10 Surprising Ways You Could Encounter Beckman Coulter Life Sciences Everyday

Beckman Coulter Life Sciences is a global company providing laboratory solutions every day. You might be surprised to learn you've probably come across a scenario where BEC LS products are used.

Have you ever...

### **...had a nice cold beer?**

The determination of particle concentration in beers is important for evaluating and/or correcting several steps during the brewing process and finishing of the product. Beckman Coulter particle analyzers such as the Multisizer 3 are used to determine the particle size and count in beer. Each kind of beer has its own characteristics and distinctive flavor; these properties will be influenced to some extent by the content and size distribution of particles present in the final product. The stability and therefore the shelf life of beer are also affected by its particle content.

### **...been treated using a biologic (antibody based) drug therapy?**

Various Beckman Life Science products are used in the development and quality control testing and management of patients receiving these treatments. Antibody based drugs are normally obtained from cultured cells. Beckman Coulter automation systems like the Biomek i7 are used to screen hundreds to thousands of cell lines by automating the process to identify the most optimal cell line. Beckman Coulter flow cytometers like the CytoFlex are used in research laboratories to select and characterize the efficacy of the antibody in animal models before human testing is performed. Beckman Coulter particle characterization systems like the Vi-CELL BLU are used to measure the viability of the cell lines used to produce the therapeutic antibody to optimize the production of antibody per cell. Beckman Coulter clinical flow cytometers like the Navios EX using Beckman Coulter flow cytometry reagents are used to monitor the immune status of the patients receiving the drug to ensure that the drug is having the desired effect on the immune system.

### **...received medication intravenously or via an injection?**

Beckman Life sciences particle counters like the Vi-CELL BLU are used to test medicines such as intravenous fluids and injectables such as insulin for particulate contamination.

### **...watched the *Big Bang Theory*?**

Many leading scientists (real and fictional) have Beckman centrifuges and cytometers in their labs. Have you noticed Beckman Products in Amy's lab on Big Bang Theory? Keep an eye out for centrifuge, viability analyzers and cytometers.

### **....needed to keep it clean?**

Across many industries—aerospace, semiconductor manufacturing, military, medical devices, biotech and pharmaceuticals to name a few—cleanrooms are essential to any manufacturing operation where reducing contamination from airborne particles is critical to success. Beckman Coulter Life Sciences particle counters like the Met One 3400 series portable air particle counters are used in various clean room scenarios from aseptic production to continuous monitoring.

### **...had a family member or friend receive life-saving stem cell transplant?**

Cellular therapies using Stem cells in apheresed blood or from umbilical cord blood are used to treat leukemias and other blood disorders. The success of stem cell transplants is heavily dependent on the number of stem cells given in the stem cell transplant Beckman Coulter FC500 flow cytometer using Beckman Coulter Stem-Kit reagents are used to determine the number of stem cells in each apheresis pack to determine if it has enough stem cells for a successful transplant.

### **...had a family member or friend infected with COVID-19**

If your family member was infected with COVID-19, the contents of the nasal swab would be tested by first extracting the viral RNA which is the first step in performing molecular biology–based methods for the determining the presence of virus in samples. The Beckman Coulter SPRI (Solid Phase Reversible Immobilization) technology is used to extract the viral RNA for research studies for COVID-19.

### **...changed the oil in your car?**

When you buy oil for your car you the oil was tested for particulate contamination at various points in the production cycle. HiAC particle counters are used to count particles in oils and hydraulic fluids

### **...known someone suffering from AIDS?**

Today AIDS has become a treatable disease due to advances in antiviral therapies. Once patients have tested positive for antibodies, they are further evaluated to determine the status of their immune system. This evaluation is performed by measuring a subset of white blood cells identified as CD4+ T-cells. This evaluation is performed using a Beckman Coulter Aquios CL using Aquios tetra reagents.

### **...been tested for HIV?**

BECLS provides clinical testing to measure CD4 levels in patients who maybe HIV positive. If you have received a CD4 test very likely you have been tested using BECLS flow cytometry products.

### **...thought about Global Health and what is means**

BECLS CARES Initiative contributes and participates in Global Health for resource limited settings with high burdens of disease. Global health is about prioritizing improvements for population health and supporting greater health equity. Not all populations have fair and equitable access for health care. The CARES Initiative is helping to improve access for testing that improves health of populations in African countries.