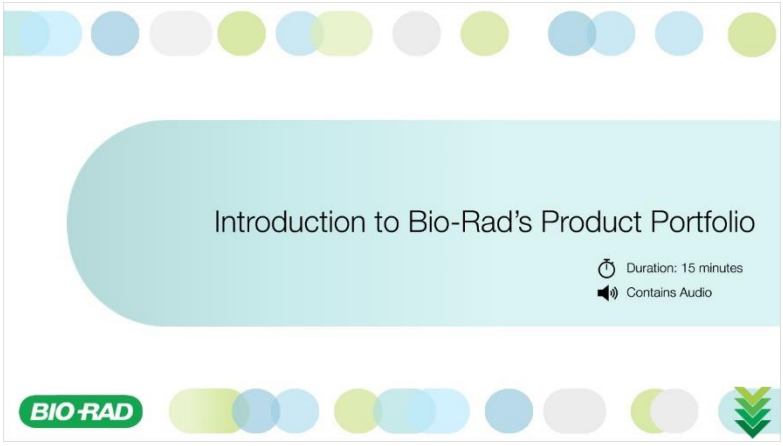
Introduction to Bio-Rad's Product Portfolio

1. Introduction to Bio-Rad's Product Portfolio

1.1 Introduction to Bio-Rad's Product Portfolio



Notes:

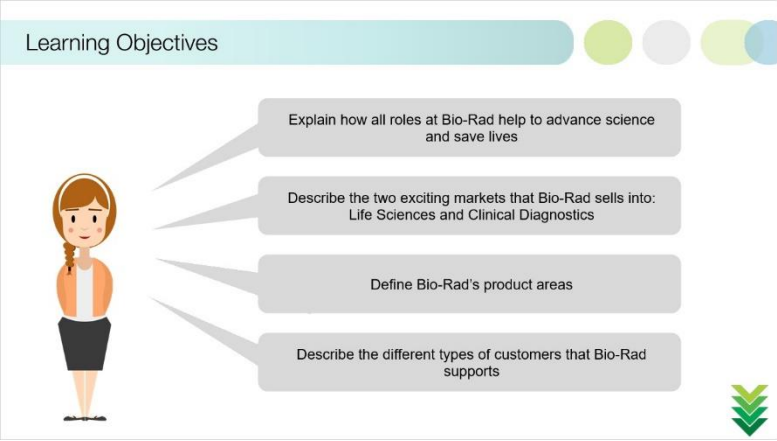
Welcome to the Introduction to Bio-Rad's Product Portfolio course.

This course contains audio, so please adjust your speakers or headphones as needed. You can follow along with the narration script at any time by selecting the Notes tab.

For additional information or to download a PDF of the course, please refer to the Resources tab.

Select Next to begin.

1.2 Learning Objectives



Notes:

Hi! My name is Cassy and I am going to guide you through the Introduction to Bio-Rad's product portfolio course.

During this course, I will explain to you how all roles at Bio-Rad help to advance science and save lives and I will describe the two exciting markets that Bio-Rad sells into: Life Sciences and Clinical Diagnostics. Join me as I define Bio-Rad's product areas and describe the different types of customers that Bio-Rad supports.

Select Next to continue.

1.3 Training Overview

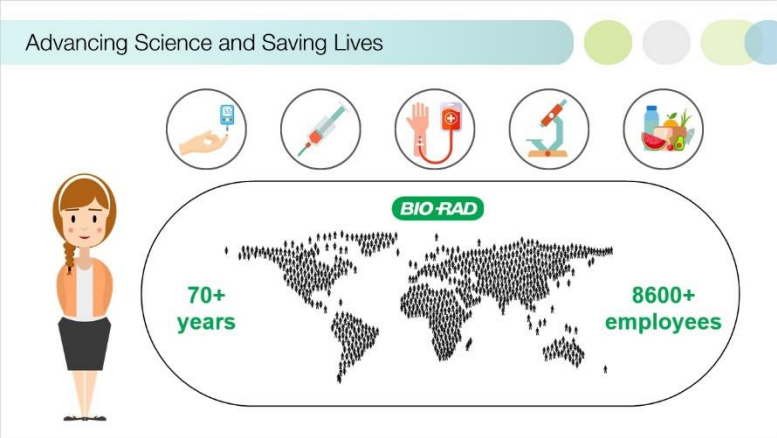
Notes:

At Bio-Rad we are helping to advance science and save lives, together. We want all employees to understand Bio-Rad's products and the impact of their individual contributions, so we have created this training to connect all employees with what we do here at Bio-Rad.

In this 7-part training we will outline the six primary technologies that Bio-Rad's Clinical Diagnostics and the Life Science products use (Amplification, Immunoassays, Chromatography, Cell Biology, Western Blot, and Quality Controls) and give examples of how each is used in the real world.

This course will provide an Introduction to Bio-Rad's Product Portfolio.

1.4 Advancing Science and Saving Lives



Notes:

Some examples of where Bio-Rad has a major impact are:

- Hospitals testing patient samples to diagnose and treat diabetes,
- BioPharma companies developing vaccines for SARS-CoV-2,
- Patients in hospitals that need a blood transfusion,
- University research groups looking for new ways to beat cancer, and
- Scientists who run tests to ensure our food is safe for consumption.

With over 70 years as an independent company and over 8600 employees working to support the advancement of science, Bio-Rad is a company that we can all be proud to work for.

1.5 Working Together to Advance Science and Save Lives

Notes:

Let me introduce you to a few people at Bio-Rad and explain how they are working together to advance science and save lives:

- Andy works in Customer Service and supports our customers by helping them place orders. His contributions ensure that customers receive the products that they need for their lab to continue its work. Without Andy, our customer's important work might stall while they wait for the products that they need – potentially stalling the life saving research or patient test results that they provide.

- Andre works in Production Planning, coordinating the schedules for which products are manufactured at any given time. This ensures that the products that are most needed are prioritized so that they can go to customers as quickly as possible. Without Andre, Bio-Rad could be manufacturing less in demand products while customers are left to wait for the urgent products they have ordered for their research and healthcare diagnostics needs.

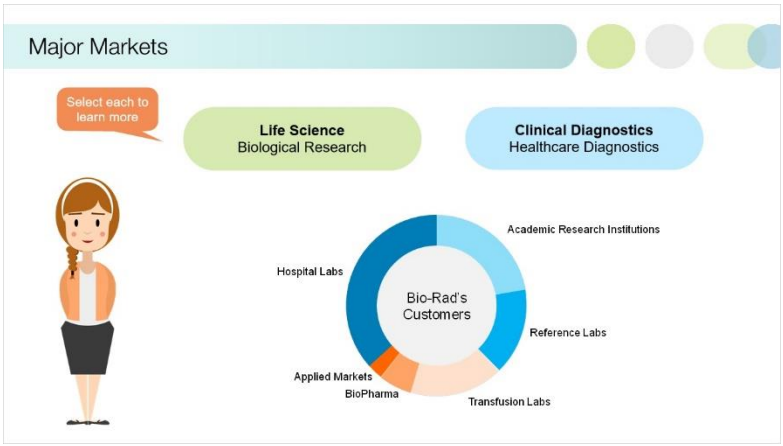
- Maribel is a Buyer in Global Supply Chain where she works with other companies to source the raw materials needed to manufacture Bio-Rad's products. Her role ensures that Bio-Rad receives the raw materials it needs for manufacturing, when it needs them, to manufacture the products that our customers need. Without Maribel, Bio-Rad's products may go on back order while waiting for raw materials and customers may not receive the product that they need to continue their vitally important work.

- Hua works in Quality Control and is responsible for ensuring that Bio-Rad products adhere to the high-quality standards that our customers need, before being shipped out. Without Hua our customers would receive products with lower or inconsistent quality which may affect the accuracy of customer's research or patient test results.

- Tracey works in Human Resources and helps Bio-Rad hire and retain top talent. By staffing and supporting existing Bio-Rad employees, Bio-Rad is able to keep top talent in all roles throughout the organization. Without Tracey, the reputation that Bio-Rad has for advancing technology with high quality products could look a lot different to our customers.

These are just a few of our colleagues at Bio-Rad, where every one of us has an impact and makes a difference. When all of us play our part to the best of our ability, we each have a direct impact on advancing science and saving lives.

1.6 Major Markets

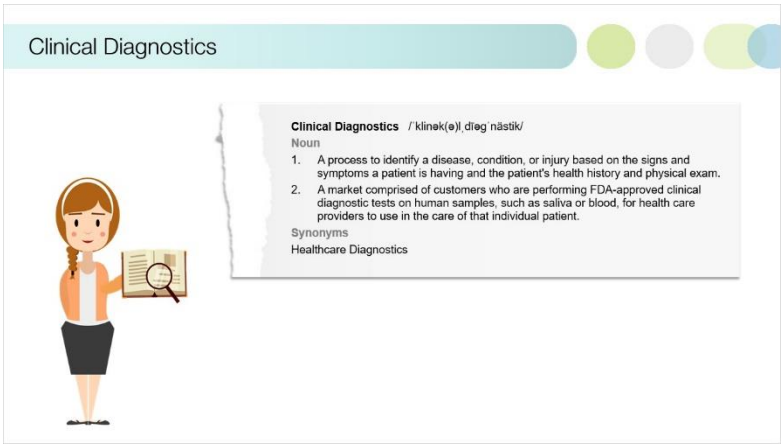


Notes:

Today Bio-Rad is a global leader in developing, manufacturing, and marketing a broad range of innovative products for the Life Science research and Clinical Diagnostics markets. With a focus on quality and customer service, Bio-Rad's products advance the discovery process and improve healthcare.

Select each market to learn more.

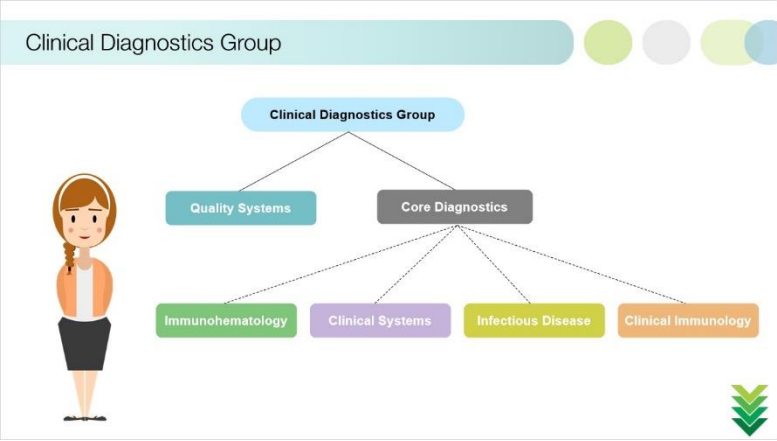
1.7 Clinical Diagnostics



Notes:

Clinical, or Healthcare Diagnostics, is a process to identify a disease, condition, or injury based on the signs and symptoms a patient is having and the patient's health history and physical exam. These customers perform FDA-approved clinical diagnostic tests on human samples, such as saliva or blood, for health care providers to use in the care of that individual patient.

1.8 Clinical Diagnostics Group



Notes:

Bio-Rad is a world leader in clinical diagnostics products, services, and information systems that ensure the accuracy and validity of clinical test results. These products support the diagnosis, monitoring, and treatment of diseases and other medical conditions. Bio-Rad's diagnostic products and systems leverage a broad range of technologies and deliver high-value clinical information.

Internally, Bio-Rad's Clinical Diagnostics group is made up by the Quality Systems and Core Diagnostics businesses. The Core Diagnostics business is split up even further into Immunohematology, Clinical Systems, Infectious Disease, and Clinical Immunology.

The Quality Systems business is responsible for Bio-Rad's quality control products and solutions.

The Immunohematology business is responsible for Bio-Rad's blood typing and transfusion products and solutions.

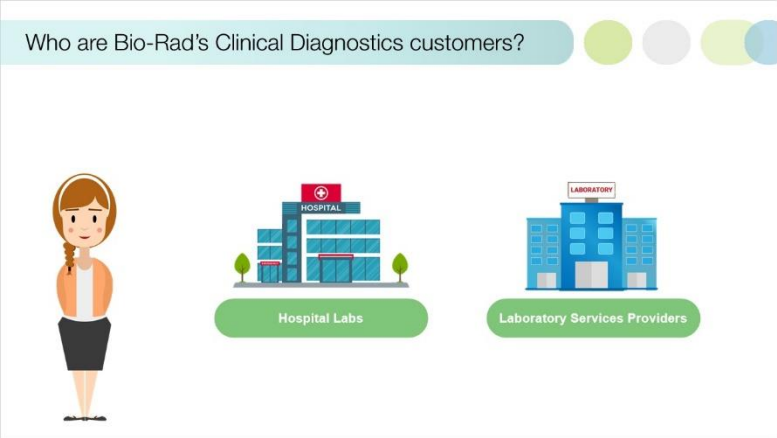
The Clinical System business is responsible for Bio-Rad's hemoglobinopathies and diabetes testing products and solutions.

The Infectious Disease business is responsible for Bio-Rad's instruments and solutions used to detect different types of infectious diseases.

The Clinical Immunology business is responsible for Bio-Rad's autoimmune testing products and solutions.

Select Next to continue.

1.9 Who are Bio-Rad's Clinical Diagnostics customers?



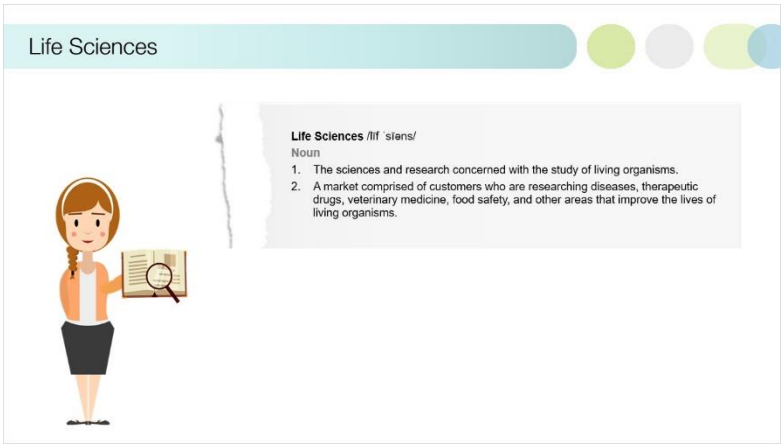
Notes:

Bio-Rad's biggest Clinical Diagnostics customers are Hospital Labs and Laboratory Service Providers.

Hospital Labs are attached to a hospital and run routine clinical testing on patient samples in order to provide crucial data needed to diagnose and treat diseases.

Laboratory Service Providers are labs that are not attached to a hospital. They are sent patient samples by hospitals that choose to outsource their testing and they, too, provide hospitals the crucial test results needed to diagnose and treat diseases. These labs follow the same strict regulations as a hospital.

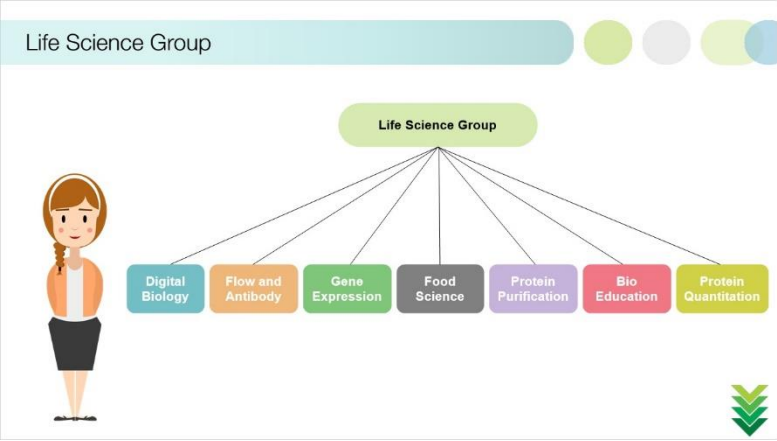
1.10 Life Sciences



Notes:

Life Science Research is the science and research concerned with the study of living organisms. The market is comprised of customers who are researching diseases, therapeutic drugs, veterinary medicine, food safety, and other areas that improve the lives of living organisms.

1.11 Life Science Group



Notes:

Bio-Rad is among the top five Life Science companies in the world, providing instruments, software, consumables, reagents, and scientific content.

Internally, at Bio-Rad, the Life Science group is made up by the Digital Biology, Flow and Antibody, Gene Expression, Food Science, Protein Purification, Bio Education, and Protein Quantitation businesses.

The Digital Biology group is responsible for Bio-Rad's Droplet Digital PCR products and solutions.

The Flow and Antibody business is responsible for Bio-Rad's flow cytometry and antibody products.

The Gene Expression business is responsible for Bio-Rad's standard and Real-Time PCR products and solutions.

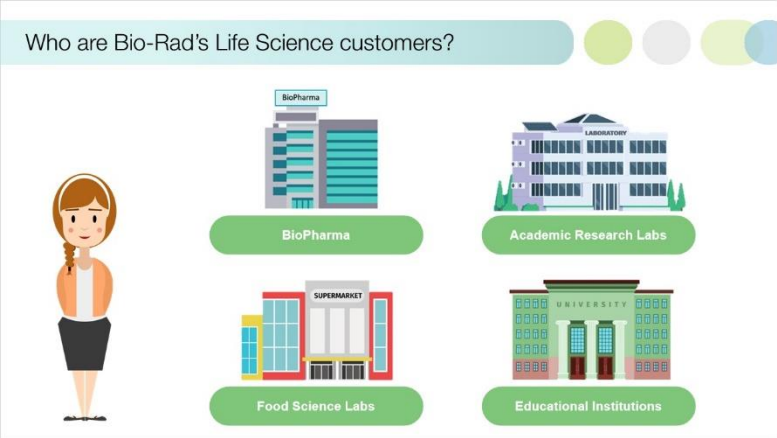
The Food Science business is responsible for all Bio-Rad products that are part of the food and drink testing portfolio.

The Protein Purification business is responsible for Bio-Rad's chromatography products and solutions.

The Protein Quantification business is responsible for Bio-Rad's electrophoresis, imaging, western blot, and immunoassay products and solutions.

Select Next to continue.

1.12 Who are Bio-Rad's Life Science customers?



Notes:

Bio-Rad's biggest Life Sciences customers are BioPharma, Academic Research Labs, Food Science Labs, and Educational Institutions.

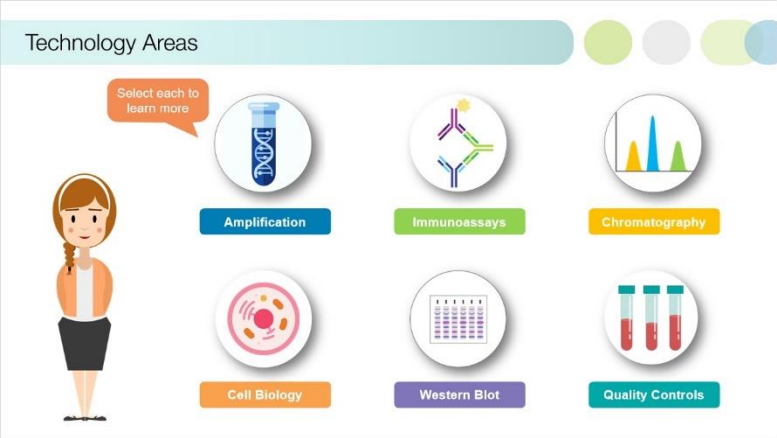
BioPharma companies are focused on developing new therapeutic drugs. They are subject to strict regulations and testing requirements set in place by regulatory agencies such as the United States' Food and Drug Administration (FDA).

Academic Research Labs are performing research in a wide range of biological areas; for instance, studying diseases in humans.

Food Safety Labs are where testing takes place to ensure the safety of food.

Educational Institutions such as Universities, Community Colleges, and High Schools are teaching future generations of scientists.

1.13 Technology Areas



Notes:

Many of the technologies that Bio-Rad provides exist in both the Clinical Diagnostics and the Life Science product portfolios. While there are different products with different uses, the core principles within each type of technology are the same.

The six largest technologies areas that Bio-Rad offers solutions for are Amplification, Immunoassays, Chromatography, Cell Biology, Western Blot, and Quality Controls.

Select each to hear a brief description.

Amplification is used to increase the amount of a gene, by replicating a DNA segment using a process such as polymerase chain reaction (PCR), in order to measure or detect that gene. A common example of amplification is a PCR COVID test.

Immunoassays are biochemical tests that measure the presence or amount of a molecule in a solution, using the reaction between that molecule and an antibody. A common example of an immunoassay is a pregnancy test.

Chromatography is a technique used to separate a mixture into its components, from a mixed sample. One example of how chromatography is used is to separate and measure the fermentable carbohydrates in beer.

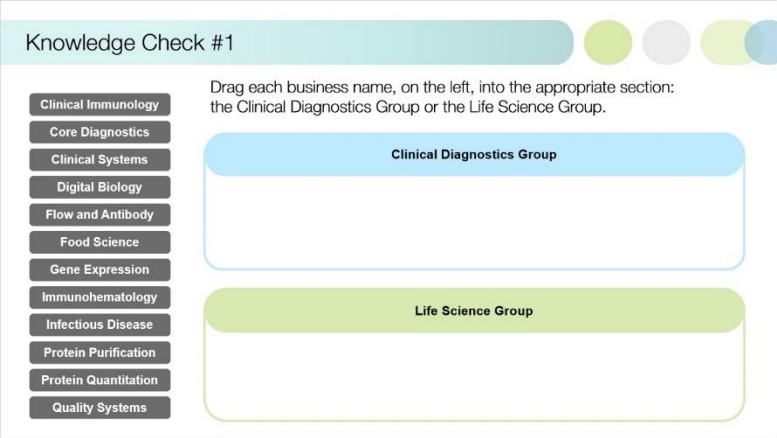
Cell Biology studies the structure, function, and behavior of cells. One example of how cell biology is used is to measure an immune response by sorting and analyzing immune cells released in the human body when it is exposed to a virus.

Western Blot is a technique used to identify specific proteins after, first, separating the proteins by their molecular weight. An example of its use is to confirm an HIV diagnosis. It does this by separating proteins in blood and detecting the specific proteins (called HIV antibodies) that indicate an HIV infection.

Quality Controls are used to measure the accuracy and precision of the processes and equipment used for patient sample testing. The use of quality controls can apply to any scientific measurement but is especially important in diagnostic tests used in patient care.

Select Next to check your knowledge.

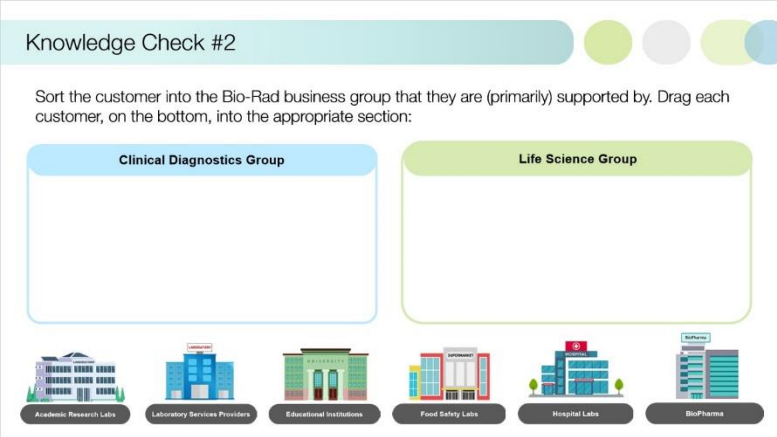
1.14 Knowledge Check #1



Notes:

Drag each business name, on the left, into the appropriate section: the Clinical Diagnostics Group or the Life Science Group.

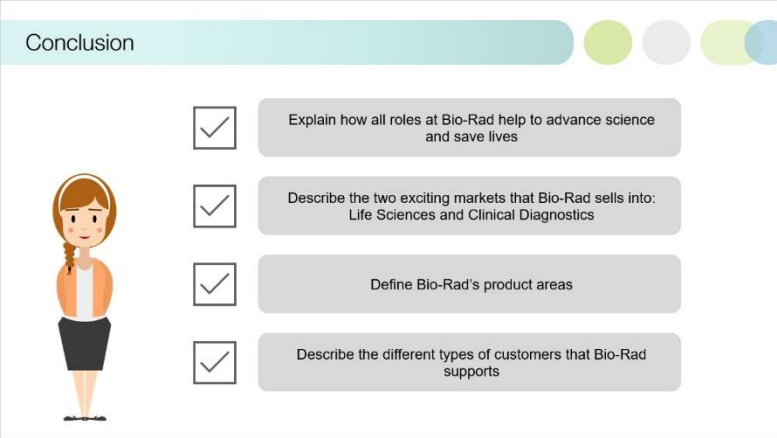
1.15 Knowledge Check #2



Notes:

Sort the customer into the Bio-Rad business group that they are (primarily) supported by. Drag each customer, on the bottom, into the appropriate section: the Clinical Diagnostics Group or the Life Science Group.

1.16 Conclusion



Notes:

This concludes the Introduction to Bio-Rad's Product Portfolio course.

You should now be able to:

- Explain how all roles at Bio-Rad help to advance science and save lives,
- Describe the two exciting markets that Bio-Rad sells into: Life Sciences and Clinical Diagnostics,
- Define Bio-Rad's product areas, and
- Describe the different types of customers that Bio-Rad supports.

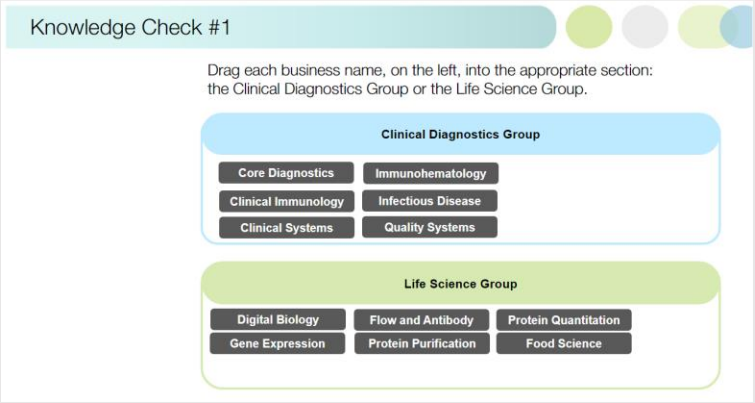
If you would like to download a PDF of the course, please refer to the Resources tab.

Select Exit to close this course window.

2. Knowledge Check Answer Key

2.1 Knowledge Check 1

Drag each business name, on the left, into the appropriate section: the Clinical Diagnostics Group or the Life Science Group.



2.2 Knowledge Check 2

Sort the customer into the Bio-Rad business group that they are (primarily) supported by. Drag each customer, on the bottom, into the appropriate section: the Clinical Diagnostics Group or the Life Science Group.