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Three ways lab design is evolving to meet needs

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The life sciences industry is changing rapidly. So is science and technology. Meanwhile, competition for the best talent is heating up. The result is that labs are being forced to do so much: act as recruiting tools, collaboration spaces, brand cheerleaders, and, of course, functional workspaces that are expensive to build and need to last. Where does lab design even begin? It begins by understanding the following three key trends:

Adaptability. Flexibility is a buzzword in lab design, but we are entering a new era of adaptability in design in which labs must be built with future changes in mind, not just for a variety of uses today. This need is due in part to the influx of millennials joining the workforce. Offering dedicated space for collaboration meets the needs of this workforce, who look to interact and brainstorm in areas beyond the traditional lab - over a cup of coffee, in a hallway, or in an informal gathering area for group meetings. Labs are also moving from wet science to more dry science, requiring less space for experiments and more for computational research. As a result, designers are looking to create smarter floor plates for collaboration and shifting research paradigms. The result is that the laboratory workplaces of tomorrow will look substantially different than the bench-science models of the past.

New research models. Different kinds of research are converging within labs, forcing the spaces to function at an interdisciplinary level. For example, at the University of Kansas the new Integrated Science Building will bring together biologists, chemists, material scientists and a dozen other scientific disciplines into a hybridized research culture - combining pure research and instructional laboratories. Many labs are broadening the type of research happening under the same roof, while at the same time core research needs are becoming more specialized. The bottom line: what we think of as a "traditional lab" is changing fast.

There is no one-size-fits-all approach and not every lab will stay the same forever. They must be adaptable as science and their mission might change.

Competition for researchers.

Finding talent has always been important for labs. In a competitive market, researchers can easily move between positions in academia and the corporate lab - and facilities play a role. The arms race for good researchers elevates the bar for designers, as companies consider the workspace an instrument of recruitment and researchers spending long hours in the lab deserve high design over a sterile lab environment.

Creating adaptable lab environments that meet the needs of a competitive workforce will continue to be a challenge for architects and designers and labs, and will ultimately better serve researchers looking to work in an interdisciplinary, collaborative environment.

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