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Interview
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Cytiva CEO Shares His Commitment to Nordic Life Sciences and Entrepreneurs

cytiva

Emmanuel Ligner
CEO of Cytiva

We are so grateful that you have agreed to join us in opening NLSDays 2021. As we prepare for the upcoming conference, would you mind telling us a bit about your personal history as it has led to your current work?

– Thank you for the invitation. I'm honored to participate in the event. My story – I have been in this industry more than 15 years now – in various roles and in various countries. I spent 10 years in Japan, where I met my wife. I've been leading this company since July 2017. I had the pleasure to lead the company during its transition to Cytiva, which was in April 2020, when we became part of the Danaher Corporation. This company has a long history that dates back to 1733, and a fresh start since earlier this year.

What is your favorite part about your job today?

– Without a doubt, it is the fact that Cytiva's purpose is very clear. We are a global leader in the Life Sciences industry. We are about 8,000 people in 40 countries, and every morning we wake up and know that our products are used by the pharma and biotech industry to care for patients around the world. That includes equipment and consumables used by researchers, manufacturers, and scientists. Our products are used in more than 75% of approved biological drugs. Recombinant proteins such as insulin are made with our products, as well as anti-cancer drugs, vaccines and plasma-derived products. More than nine Nobel laureates have used Cytiva instruments and consumables in experiments that led them to their world-changing discoveries. We're helping our industry advance and accelerate therapeutics for patients of cancer, diabetes, hemophilia, rare diseases and more.

– And especially now in the COVID-19 pandemic, we are involved in projects for diagnostics, vaccines, and therapies. Our people are working with more than 60% of ongoing clinical programs, with equipment and expertise designed into those. When it's time to scale up manufacture and distribution of an approved vaccine, we will be essential to that process.

As you know, the theme of our 2021 NLSDays is "Bridging Gaps" and highlighting the Nordics as a unified region. What do you see are the biggest assets in working and investing in the Nordics?

– There is fantastic innovation in the Nordics and collaboration with public and private firms. Our Testa Center in Uppsala is an example of this – with investments from ourselves and the Swedish government, we are able to offer a place for entrepreneurs to run their experiments at scale and accelerate their development. We recently ran the Testa Challenge, where we invited innovators in the areas of sensors, smart laboratory tools, digital twins, process modelling, automation and more to verify their ideas at the Testa Center.

"There is fantastic innovation in the Nordics and collaboration with public and private firms."

– Uppsala is home to our largest concentration of R&D engineers as well… so we are able to realize a lot of good ideas from this region!

In a collaboration between Cytiva, SciLifeLab, KI and KTH, Cytiva associates were tested for COVID-19 infection using analysis methods developed by SciLifeLab and KTH. As well as evaluating the new method the testing helped paint a more complete picture of the COVID-19 spread.

Read more...

– The Nordics are also essential to our core business. One percent of Sweden's exports come from Cytiva in Uppsala, which is home to one of the world's largest installations for production of chromatography resins. From our

manufacturing site in Uppsala, we provide the tools and ingredients to make 90% of the world's supply of insulin. That makes a difference for diabetes patients and their families.

Cytiva recently changed ownership and is now owned by Danaher. What impact has this transition had on the overall business?

– Becoming part of the Danaher Corporation is great for us. With our sister companies such as Beckman Coulter, Pall Corporation, Molecular Devices, Sciex, and more… we are in a community of companies who are leaders in the life sciences industry. We have common customers and everyone understands the pace of this industry. Being part of the Danaher Corporation allows us to develop more complete solutions for our customers, bringing new tools and products to the market faster. Danaher really drives success, and has infused kaizen [the Japanese business philosophy] and its continuous improvement tools. So the Danaher Business System is something are learning and practicing in our day-to-day work.
Danaher knows how to fuel innovation and fuel growth. Already, we have announced plans to increase investments in capacity expansion, for example, which will result in more associates and greater output from our Uppsala manufacturing site.

"In the Industry, we are in a new world."

The Cytiva logo holds a special meaning and history for Sweden and the Nordics. How does it feel to add a new name to this logo and become part of this bigger historical context?

– Thank you! We are also excited about it. During our transition, as we were choosing our new name and new logo, we had so much enthusiasm from our colleagues about the Drop. It was designed in 1966 by the famous Swiss designer Armin Hoffman. The company Pharmacia used it as its company logo and it remained on many of our consumables products even when we were part of GE Healthcare Life Sciences. So our customers and partners recognize it. Now, as the symbol for Cytiva, we hope our customers and partners will recognize it as the symbol for all of the value we bring to customers – not just in protein purification, but in single-use, and cell and gene therapy solutions.

– The combination of a new name plus a familiar logo gives a sense of continuity – acknowledging our long heritage and our fresh start at the same time. It also connects our reputation for quality and experience with innovation. The name Cytiva actually comes from the Greek prefix cyto – meaning cell, and the Latin suffix -iva, which means enabling or knowledge of something. So it really hits on what we do with our customers and for the industry.

Tell us about this year for you and your team. What has been the impact of COVID-19 in the biopharmaceutical area for Cytiva?

– 2020… what a year. Our focus is two-fold: we have to continue to operate in a way that is safe for the associates who work in manufacturing, and need to come to the workplace; while also managing and supporting a new way of working for those who can be remote.

– In the industry, we are in a whole new world. Today, there are 1200 programs to find a diagnostic, a cure, treatment, or vaccine to respond to the COVID-19 pandemic. Within 8 months, the industry has done this. As a reference - over 40 years, there have been 250 programs to respond to Ebola. Over the same period, about 1200 programs have been run to respond to AIDS. So when we say "speed" when we say "agile"– we mean something we've never seen before.

– This is possible because of great focus, governments willing to invest in research, innovative public-private partnerships, as well as regulators who are now reviewingthese programs very quickly. It's all hands in. That is not necessarily new in this industry, but it's now happening at greater scale and with greater speed. It puts more pressure on us to supply huge quantities at extraordinary speed. It's an adrenaline rush, to be honest.

– In terms of remote working, for me and my leadership team, for our commercial teams, travel restrictions mean that the trust factor has to be multiplied. For teams that are accustomed to shaking hands with project managers, giving people pats on the back to motivate them, you suddenly are challenged to do this remotely. We spend a lot of time telling that story to our associates because, you know, some of our associates can work from home like I can, and some of our people cannot–they have to go to the manufacturing plant and they have to produce the resins, bioreactors and other products that are so critical for the world's health.

How does Cytiva see the increased effort on digitalization

in life science, and what is Cytiva's role in digitalization for new biopharmaceuticals and treatments?

– The industry wants, as always, to increase speed and productivity. That is universal and constant. Digital tools can help our customers optimize development and reduce risk of advers events by, for example, using in-silico simulations and predictive models.

– At Cytiva we are working closely with our customers to develop the right digital tools, not only using data from processes, but also from raw materials, to improve precision. We are also developing cloud-based software products as a part of a digital toolbox to help our customers with their digitalization efforts. Through these tools, collaborations, and our internal digitalization efforts, we are aiming to reduce complexity and increase the speed of time to market.

"we are working closely with our customers to develop the right digital tools"

What would you say are some of the key trends in the biopharma space in general?

– The new modalities – what we call the "new zoo" – will change our industry and human health overall. I'm incredibly excited about it. Basically, we are teaching our own immune systems to cure ourselves. Let's take the example of hemophilia – a genetic condition in which the body does not produce the platelets necessary to clot blood. A gene therapy could use a viral vector – a small virus – to carry the gene modification tools to your body, modify your gene, and allow your body to produce those platelets. This is an incredible development that could potentially change the lives of millions of people. CAR-T is an approved therapy that is also very exciting in this space.

(From Dana Farber Institute: CAR T-cell therapy is a form of immunotherapy that uses specially altered T cells — a part of the immune system — to fight cancer. A sample of a patient's T cells are collected from the blood, then modified to produce special structures called chimeric antigen receptors (CARs) on their surface.)

– Cytiva is helping companies research, develop, and manufacture such therapies. Over the next ten years I believe these gene therapies will completely transform our industry.

– Another key trend in the biopharma space is single-use technology – by lining stainless steel vats with plastic, drug-makers are able to more quickly switch batches, and make smaller batches more quickly. More factories are using this single-use technology because it saves time, eliminates the need for cleaning chemicals and vast quantities of water, and improves productivity.

– Then, supply is more critical. We're seeing an enormous increase in demand for our products and services – not just because of COVID, but in our core business. COVID-19 and single-use technology have together accelerated demand.

– We are accelerating our expansion plans to respond to that need. We already ensure that we have more than one source for our raw materials. We have close collaboration with our customers to understand their future demand, which allows us to expand at the right pace for the industry.

There is a lot happening in cell and gene therapy, but in your opinion, what is the most exciting thing happening in this area?

– Everything in this area is exciting, to be honest. This is an emerging technology with emerging processes. Our goal is to those processes less labor-intenstive, more automated, and standardized to help this emerging technology scale up. We work in tight collaboration with other leaders in this field.

– Over the last few years, the scientific progress has been amazing with several approved therapies on the market. Despite their clinical success, widespread adoption is held back by the high cost of manufacture and distribution.

– I see similarities in how BioProcess manufacturing was, twenty years ago. That's why at Cytiva, we are taking what we have learned from BioProcess manufacturing and applying this to cell and gene therapy. We must enable our customers to completely close and automate their manufacturing processes in a manner that can scale with them as they move to commercial manufacturing, while reducing the manual labor costs. For example, we have developed a liquid nitrogen-free shipment system, the VIA Capsule, specifically for cell therapies and cryopreserved apheresis.

– In addition, we bring our manufacturing and logistics systems together with our Chronicle GMP automation

software. It provides a unified digital platform to monitor cell therapy facility manufacturing operations and supply chain logistics.

– Cell and gene therapies have the potential to transform global healthcare and cure previously uncurable diseases. By continuing to invest in R&D and developing strategic partnerships and collaborations, we will be able to continue automating the workflow, reduce the labor costs and address the logistical challenges hamper widespread adoption.

What do you think our industry has learned during COVID that we can take forward positively into the future?

– I have seen this industry come together like never before. Collaboration has always been a hallmark of this industry, but now more than ever… we're seeing competitors share data, share experiences, and work together to solve this global pandemic. I hope we continue to work this way as an industry.

What advice would you give to a new entrepreneur entering the life science space today?

– I would say: Have a formula around growth, discovery, innovation and delivery. Have a strategy about why you need this innovation and where it will have the most impact. Then, look at your people. Do you have the right people to execute your strategy? Do you have the right culture and organization? Make sure your people work with the right mindset and passion, sharing the same objective. Are they set up the right way for success? These things enable discoveries to feed your R&D pipeline. And be sure you have the right partner who can help you scale up your experiments and break through once it's time to go to market.