

LASEWICZ: This is an oral history interview with Carol Kovac, General Manager, Life Sciences Solutions, conducted in Armonk, New York on June 26, 2003 by IBM's Corporate Archivist, Paul Lasewicz. Thank you for taking the time to sit down with us today.

KOVAC: My pleasure.

LASEWICZ: Could you describe your current position and title and give a little synopsis of what you do?

KOVAC: I'm the General Manager of IBM Life Sciences. We formed three years ago as one of seven emerging business organizations that was started by Corporate Strategy.

Emerging business organizations focus on exciting areas of high growth for information technology -- what Lou Gerstner liked to call 'the next big thing.' What is the next big thing?

So in 1999, Corporate Strategy picked seven areas they thought would be this sort of exciting next-generation growth. Life Sciences was one of them.

At the time, as I am fond of saying, there were only two of us in the business unit. We often talked about the possibility of getting a dog ... Today, our business has

grown to over 500 people dedicated to life sciences around the world. We are one of IBM's fastest growing businesses and are in the fastest growing IT market. So, we're very excited about that.

LASEWICZ: It sounds like an interesting three years.

KOVAC: It's been a tremendously exciting and fast-paced three years.

LASEWICZ: Can you tell me a little bit about the schooling and the education that you've had? What courses interested you the most and why?

KOVAC: Well my educational background is in science. I'm a chemist. I have an undergraduate and a Ph.D. degree in chemistry. I knew that I wanted to be a scientist from about the time when I was in high school, but I really thought I wanted to be a biologist. When I got to college, I started taking the prerequisite chemistry and organic chemistry needed.

By the time I took biology, I was halfway through a chemistry major! Biology was really just starting to be about molecular biology, which is really chemistry anyway.

So, I became a chemist. It's interesting that now after 20 years in IBM and another 10 or 15 in chemistry, I have returned to the area that I always thought I wanted to be in -- biology.

LASEWICZ: Full circle.

KOVAC: Full circle, yes.

LASEWICZ: Can you give me a summary of your work history? What was your first job at IBM? And when did you start?

KOVAC: Well, my work history actually starts before IBM. I worked in a chemical company doing chemistry for materials science and really interesting work in developing new ways to make carbon fibers and products out of carbon graphite and carbon.

Then I went back to graduate school. After I completed graduate school on the west coast, I looked for a job in chemistry. Somebody said to me, 'You know, IBM has a really terrific research lab in California. They have a lot of chemists there who are doing really interesting stuff. You should go down there and check it out.'

So, that's how I came to IBM. At the time, the lab was called the San Jose Research Lab; it is now Almaden. In

fact, there were some really interesting projects underway on new process methods for making very, very fine metal structures for high-end packaging electronics for the mainframe computer.

I was able to apply my chemistry skills to this research, and I got to learn about some new science. It was a wonderful experience.

Probably one of the best aspects for me as a scientist working in IBM is the interdisciplinary nature of the people you work with. I learned so much from my colleagues at IBM Research because they came from all different engineering backgrounds and science backgrounds. And that's the one thing I have always valued the most about the technical community at IBM.

LASEWICZ: That's kind of an intellectual brew there, you just throw everybody together and something ferments out of it.

KOVAC: Well I believe that some of the most exciting new discoveries in science are made at the interfaces of disciplines -- when two disciplines come together.

For example, this year is the 50th anniversary of the discovery of the structure of DNA. The people involved in

that discovery were physicists and chemists and people who studied X-ray diffraction. They were joining up with people who understood what DNA was and biology. It was really the confluence of those disciplines that created that 'ah-ha' moment of understanding about DNA.

Molecular biology is the same: It's about the convergence of chemistry and biology. And today in Life Sciences what's most exciting for us is something that we think will change biology profoundly -- the convergence of information technology and biology.

LASEWICZ: Can you go a little bit deeper with that? Can you talk about some of your early experiences that would be 'ah-ha' moments with you in terms of choosing to be a scientist? Or what kind of things attracted you to this field?

KOVAC: I'm not sure I ever had that 'ah-ha' moment. But the things that attracted me to the field were the opportunity to work with very complex systems, solve problems, and really come to a fundamental understanding of what was really happening.

I mean, one of the things about science that's a little different from other fields such as law or history or political science is there are fundamental truths in

science. There are fundamental laws. They might be very complicated, they might be very hidden. In biology, for example, some of the truths are still very much hidden from us, such as the incredible mysteries of how the brain works. Or how a disease like cancer starts, and what we should do about it.

These are still very hidden from us, but we have no doubt that there's a basic truth. And we can find it. And so, I think this ability to use computation together with biology to find truth is what is very exciting about science.

And all those other fields that I mentioned, wonderful as they are, often are much more subjective. One never really experiences that wonderful feeling of 'I get this, I understand it, it all makes sense.'

There's a magical or [theological] thing about knowing it all makes sense.

LASEWICZ: Faith is a good way to put it.

KOVAC: Yes.

LASEWICZ: Were there any family members, friends or teachers in your past that had encouraged you to pursue this or provided an example for you that made you think at some

point, 'I would like to do that', because of their influence?

KOVAC: Well, actually I was one of the first members of my family to graduate from college. I came from one of those immigrant families that believed in hard work. They very much believed in education for the next generation.

I'm the product of that mentality of incredible hard work and taking advantage of the opportunities that you have and never taking for granted the fact that you have the opportunity to learn more and educate yourself.

I didn't have any role models when I was growing up who were scientists. I had a couple of role models who were women in nontraditional fields. A family friend who was an attorney in the time when there weren't too many women attorneys.

My mother who a businesswoman. She owned a small business and was a tremendous model for hard work. She was also a working mother, as I am today.

But I didn't have any good scientific role models, and it wasn't until I was in college that I encountered many women who were pursuing science degrees. I felt there was a very open, level playing field when I was in college. When I graduated and started working, boy, was that an eye-opener!

LASEWICZ: How so?

KOVAC: Well, that's when I realized that, in fact, science was not very heavily populated by women. I worked in a laboratory where there were probably 100 scientists and 99 of them were men and I was the only woman.

You start to realize, when you walk into a room and everybody else is a man and you're the only woman there, that the climate is different. It's an environmental factor that makes you much more cognizant of this idea that you're different.

As a consequence, I had to make sure that what I did was extra good because it would be noticed just because I was different. And I think that those environments, in fact, can be very tough.

It's one thing that I've always been very conscious of, creating an environment that is comfortable, open, welcoming, and it doesn't matter if you're a woman in a room full of men.

Actually, not long ago my executive team in Life Sciences had three women executives and two men executives who

actually commented about how strange they felt. And they weren't really that outnumbered.

I think you have to be conscious of providing a diverse environment where everybody can bring the best of their background, experience, learning, knowledge and way of thinking about things. My sensitivity as a manager and an executive today comes from those meetings where I was the only woman among 100 men.

LASEWICZ: Let's step back a little bit: You mentioned there was the sense of an open playing field in college, but then you got into the work environment and it wasn't like that. Was there a reason for that discrepancy that you can point to?

KOVAC: I think it was just really about the environment and the numbers within the population that was there. In fact, my colleagues there were tremendously supportive. I don't mean to imply that they were hostile in any way.

In fact, that first work experience, which was not IBM, motivated me to want to continue with my education in chemistry. It convinced me that I loved research.

My colleagues were, in large part, responsible for that. They were inspiring. I had mentors there, including men who helped me to see what my next steps needed to be if I wanted to be a success in research.

So, I think that it was mostly about the demographics and being singular that makes you feel a little bit out of place. This changes, of course, when you get about 20 or 30 percent women in the mix, as opposed to an environment where there's only a few percent.

LASEWICZ: What was the situation when you came to IBM after coming out of grad school? Was it a similar feeling for you, or was it a little bit different?

KOVAC: Actually it was different, and the time was different. I started working about six or seven years later. The other thing that was different, when I came to IBM's Almaden lab, was the manager who hired me was a woman.

She actually became a very important role model for me. There was also another woman there who was a second line manager who went on to become an important executive in the storage area.

And there were a number of women in the management of IBM Research who were extremely impressive people: They knew

what they were doing; they had strategic vision; they were excited about projects; and they could sell their ideas. They were very well respected as part of that management team. And we looked up to them, all of us.

That was where I first saw women role models, in an industrial research setting, who I could really identify with, and who became mentors for me, and who I could really go to and say, 'Help me with this.'

Or, 'Help me with a professional situation', or even with a situation that spanned personal and professional issues, like work life balance. And those were very valuable relationships that actually continue today.

LASEWICZ: You anticipated one of my questions. When you talk about a mentor, what kinds of roles would a good mentor play for, say, the mentoree?

KOVAC: I think that mentoring is, first of all, a two-way street. There has to be a good chemistry between the people involved.

One of the things about mentoring is, you have to develop a relationship that matters and is of value to both parties.

We often think that we need a mentor. 'Someone needs to mentor me' or 'I need something from that person.' Well, I think about it more as a relationship. Also, you don't have to have just one mentor. You can go to different people for different kinds of advice. You normally do that in your life.

Well, think about your job as your professional life, and think about the people that you can call on to get advice -- to help you.

I think one of the best things a mentor can do for you is to help you see yourself more clearly -- to hold up the mirror even when it's hard and say, 'Hey, Carol, you'd better realize there are some things that you need to think about.'

Actually, one of the best mentors I've had in that regard is Nick Donofrio, who actually has said to me, 'You've got some things to think about here, lady.' And it wasn't always a pleasant conversation.

But it's the best conversation that I've had from a mentoring point of view because I really did have some things to think about, and Nick was being honest and candid and he cared enough to say, 'You've got to work on this.'

One of the really valuable things about having a mentor is that they'll tell you some hard things because they care enough to make you better.

LASEWICZ: Okay, you've been trained as a scientist, you've work as a scientist. Today, would you classify your training as having any role in your job today?

KOVAC: Oh, yes.

LASEWICZ: ...to do your job better?

KOVAC: Oh, absolutely, although I certainly am not doing bench science by any stretch of the imagination. Our customers tend to be very technologically savvy. They're very computationally intensive, and also they're scientists.

It really helps to think like a scientist and to have the experience of what a scientist needs to really be able to develop meaningful solutions to help scientists do their work better.

In this whole area of life sciences and biology, actually I have to say that it's not just my background that helps me. It's a delight because there's so much to learn, and so much new.

Every day there's a new discovery and it's so much fun to feel that you're really, in some way, a part of the discovery, even though you're really just a business executive.

But you feel that you're part of these most exciting discoveries of the 21st century. The Human Genome Project, what a monumental accomplishment to understand this kind of map of life, or the book of life as some people like to call it. But it's just the very beginning of the things that we can accomplish.

LASEWICZ: Can you describe your work over the years and what you find most satisfying about it?

KOVAC: While I love to solve problems and I love that basic element of scientific truth in things, there are other aspects that have always been important to me. For example, utility: Being able to see that something I'm doing will get used by people and will matter and make a difference.

Although there are fantastic scientific projects that are deeply intellectual and will lead to a fundamental understanding of things, they'll never be practical or useful. You know, those projects are really interesting to some people, but I can't get engaged in them.

The real buzz for me happens when I have a challenging scientifically or technically interesting problem to solve that can actually make something new.

One of the real joys of working in IBM and in IBM Research is the ability in this extraordinary window of time to have such a big impact through technology.

I started working for IBM in 1983 -- two years after the PC. We've come through a revolution of moving computing to individual people and out of the glass house. We helped do that.

And then, just when you think, 'Oh, wonderful stuff', along comes the Internet and e-business and there's this next great leap forward in the way people think about technology and how technology changes everyday life.

Who would have thought that you'd be ordering books or shoes online, and looking for your medical information in this vast repository that everybody contributes? I mean, the change is just amazing if you think back over the past 30 years ago.

I feel like I'm getting another shot at it through life sciences. I firmly believe that life sciences is going to change the world of health care and the pharmaceutical

industry over the next 10 years in ways that are probably more profound than the Internet has changed the world. The opportunities and technologies that will make profound change happen are just huge.

LASEWICZ: So you've identified the common threads among the positions you've had? Are there any professional common threads, as you moved from position to position?

KOVAC: I would say that in some ways I'm a generalist. But, I have not pursued a common scientific thread through all the jobs that I have had. In fact, I have done almost the opposite.

I have taken new jobs that have been in areas that are very different than what my technology or science background has been. For example, training as a chemist and then going to IBM was not the most obvious thing to do.

Since I've joined IBM, I've taken new jobs in diverse areas. I took a job in manufacturing, although I never worked in manufacturing. I got very interested in software for supply chain management and some of the projects that researchers were working on in this area.

I decided that it would be really fun to try to build a new business for IBM around supply chain management, so I left Research in the mid-nineties and went off to do that.

I came back to Research and did a bunch of other things. So in some sense, it's been a matter of applying the core methods of science to very different business areas that has given me the breadth that's worked for me.

LASEWICZ: Have there been characteristics from job to job that allowed you to play to your strengths in some fashion, or is this just, 'I'm there for the challenge and this is interesting to me. I'm going to take it on and see how I do'?

KOVAC: I think one of the characteristics is this idea of making a difference and being valuable. Someone once asked me, when I was a graduate student, what I thought the most important problem in chemistry was. I thought it was a trick question and wasn't really prepared to answer, knowing my answer would prompt the next obvious question: 'Is that what you're working on and if not, why not?'

So I've always thought about what should I work on next as, 'Is this something that I would view as a really important problem?' I would say that has guided my choice of next jobs, next careers and stages in my career.

I have to feel that it can be very important and really make a difference. When Paul Horn asked if I was interested in this life sciences position, the job wasn't well-defined. 'This could be the next big thing, but we don't really know what we should do about it,' he said.

The first step in my decision making was deciding if I wanted to leave Research, where I was the senior leader over about 500 people working on wonderful projects. Did I really want to go off and start this brand-new uncertain thing?

I thought about it and whether it truly had the potential to be 'the next big thing'. Then I got really excited thinking about what we needed to do to make it happen. You have to sell yourself. Look at what you're working on, and if it's not that important, then do something that is. I think that's important for anyone choosing their next job.

LASEWICZ: Did you ever have regrets about turning down a job?

KOVAC: No. Thinking back on the jobs that I turned down, I can say it was the right thing to do. Although there was one job that was offered to me again a year later -- a

developmental staff assignment -- that I shouldn't have turned down the first time. But overall, there was never anything that I deeply regret.

LASEWICZ: To change direction a little bit here: How has being a woman affected your role as a technologist, in your development, your progress?

KOVAC: Well, I have to say that, overall, there have been challenges during my career being a woman and some of them relate to learning to feel comfortable in an environment where you're different.

I talked earlier about some of my first work experiences. When you're young and just starting out and unsure of yourself, it can be a very isolating environment. You feel like everybody's always watching you to see how you'll react and respond.

That puts extra weight on your shoulders that causes a lot of women early in their careers to say, 'You know, this is just not for me. I'm just not comfortable here.'

I felt that way early on in my career. Part of what kept me going was the fact that I really did love what I was doing. And I really liked and cared about my colleagues as individuals.

That was a challenge. It's one that has always reminded me of the importance of making everyone on a team feel comfortable and valued in the environment.

I think women often question their ability to deliver. If there is one thing that I would change, if I could go back, it's this: I would think more boldly about possibilities, about my own capabilities. I don't want to generalize too much, but we as women in business tend to question ourselves and be much more self-analytical and self-critical and willing to say, 'I'm not really going to go for that, I'm not going to shoot that high because I might not get there.'

By the way, as a woman, you're much more visible if you shoot high and miss -- although I'm told by most men that they feel the same way. So, those things have made me think differently.

Being a woman means that I do have the opportunity to be a mother, which no man does. And I think having a family and balancing my work and my family has in many ways been a blessing for my career.

It wasn't really until I had my son that I felt much freer in my own career to make choices. All of a sudden I could

choose to be just be a mom: 'This little guy is so wonderful, I could do that.'

It might sound odd, but I felt free to take more risks in my career, which was something I didn't anticipate. But other women have told me that's happened to them as well.

LASEWICZ: Motherhood is a liberating experience?

KOVAC: Yes. I think most people would say motherhood is a liberating experience in some sense.

LASEWICZ: I want to go back to a comment that you made a little bit earlier about being different as a challenge you had to overcome. Is there anything in particular that you were able to do that allowed you to successfully overcome that challenge?

KOVAC: Yes, I would say that I've been blessed all my life with a reasonably good sense of humor. I've seen a lot of women who become very self-conscious and they become almost bitter because of the sense of being different. They let it get to them and make them angry.

I have always found that it helps to diffuse situations with humor, a joke or a snappy comeback. Humor is often a very effective way to manage really subtle situations.

One of the examples that women always talk about is: You're sitting around the table with a dozen people, and there are one or two women and the rest are men. It's a work session and you are brainstorming.

And you say, 'I've got an idea.' But it's almost as if you're the invisible woman -- no one heard you or paid attention. You wonder, 'Did I actually say that?' because no one reacted or said anything.

Two minutes later a guy down the other end of the table says, 'Wait, I've got an idea,' and says exactly what you said. The reaction is, 'Wow, Joe, what a brilliant idea! That's great.' So then what do you do? If you say 'Excuse me, but I said that two minutes ago', it sounds petty and small, right?

And so how do you react to situations like that? You can get angry, you can get mad, you can say nothing and feel slighted. I choose to be funny about it. Even if humor doesn't fix anything, it will make everybody laugh and make you feel a little better -- you've gotten a little bit of your own in.

LASEWICZ: Okay. Returning to work/life balance. Can you talk about how you've managed to find a balance between your personal life and your career?

KOVAC: Well, I think that work/life balance is probably one of the most difficult issues right now, but it's not just a women's issue -- I think it's difficult for women and men in the business.

It's very much a personal and professional issue because we only get the best from our employees and from our business when people are working because they really want to be there.

If you feel that you're working but not really wanting to be there, then you're not going to be giving your best. I think it has to be everybody's individual and personal decision.

My son told me the other day that he couldn't see me retiring. He said, 'Maybe I could see you retired for a week and a half, exactly 10 days. And after that, you would be miserable.' He's 14 years old, and he's probably right!

So, I think that your own family comes to recognize you get pleasure out of working when you do, when you have a job

that you really care about and you really love and you do it because it's making a difference.

Your family will say, 'Well that's part of who my mom is.' But it has to be part of your balance. And if it isn't, your family is going to feel it and say, 'She's out of balance because she's always angry, she's always rushed and her hair is always standing on end.'

So, I think that's pretty important. I don't know that I have a lot of real wisdom. There have been many times when I've felt out of balance. It's never going to be absolutely perfect when you're trying to do many, many things.

But you have to decide where that line of good and not good enough is and just honor it -- no matter what the impact is on the business. Otherwise you can't make a good contribution.

LASEWICZ: Were there any corporate or professional programs that helped your work/life balance or helped you advance your career?

KOVAC: Probably the most significant program that really did help me was when IBM decided to sponsor more community daycare.

My son was in an IBM-sponsored daycare center from about the age of three until he started school. And those centers were really marvelous places that were well run where I felt that he received a terrific social interaction, as well as a lot of learning. They were fun environments.

There were places where when I walked into them at the end of the day I thought, 'I'd love to spend my day here.'

He was in two different places and they were both sponsored and partially supported by IBM and many IBM families used them. I thought that was a really wonderful benefit that helped us enormously because I never worried about my son.

If I had to worry about the environment that my son was in I don't think I could have really focused on my work effectively. I know that not everyone is as lucky as I was, having really high-quality daycare. And so I think that is really important.

The other thing that I value a lot around work/life are IBM's views on flexibility and mobility -- moving to do a job or working remotely for example.

Back in the mid-nineties I was very interested in a supply chain position. When I was offered the job -- from a manager in Charlotte, North Carolina -- I accepted on two

conditions: I didn't want to move to Charlotte, and I didn't want to learn to play golf.

His response was, 'I think we can live with that.' And so this ability to have somebody who was willing to be flexible about not moving my family -- my husband had a job here at that time -- was very important to me. I probably wouldn't have taken that job if it required uprooting my family and moving to Charlotte.

I see this throughout IBM and we've tried to be very conscious of it in life sciences. With so many ways to use technology -- not just computing and information technology, but in telecommunications, videoconferencing, Sametime, etc. -- lots of people can do their work remotely.

It's very interesting, when we have our annual kickoff, usually in January or early February, we try to get large numbers of life sciences people together who are part of work groups. We always have people who are meeting each other for the first time, although they've been working together for at least six months or eight months.

They'll say, 'Oh! You're Carol!' And it's just wonderful to see them actually meet, because they really do already feel like they know each other.

And so I think it's not a single program, but a culture and a mindset that we need to encourage more, these ideas of flexibility and mobility. It's not where you work that matters, it's not the exact hours that you work that matters. It's what you get done and how you get it done that matters. And that's all.

LASEWICZ: Looking back, is there anything that you wish you could have done differently over the course of your career?

KOVAC: No.

LASEWICZ: Good answer.

KOVAC: I'm not sure I can look back and say that there's any sort of major change I would have made. I was at one of our strategy reviews with Lou Gerstner a couple of years ago. He looked at me and he said, 'You have the best job in the company.'

I thought, he's right! I do. I feel this is a tremendously exciting opportunity.

LASEWICZ: What would you consider to be your most important contributions to technology or science?

KOVAC: I think the most important contribution is IBM Life Sciences. We are doing a number of things. First, we've built a new business for IBM that is truly a growth business. That is very exciting. And beyond that, I think that IBM and this life sciences team have articulated for the whole world a point of view around how information technology becomes an integral part of the next generation of biological discovery and scientific discovery and new medicines and curing disease and changing the way medicine is delivered.

You know, there are many things that we do in life sciences: We work with universities, we do fundamental research at IBM Research on computational biology, on really specific diseases like leukemia and breast cancer and diabetes and others.

And we build the infrastructure for giant pharmaceutical companies and small biotech companies to make their innovations happen.

When you put all that together, I think that I'm most proud of the fact that we're really now the leading information technology company, not just from a business perspective but leadership in terms of thinking about the future and helping to make it happen...helping all these other life sciences

companies make the future come true. And I'm most proud of that.

LASEWICZ: What are the things that you think made you successful?

KOVAC: I think that I have an attitude about work that some people might say is pretty demanding. I drive hard and I set pretty high standards and high goals. I've always believed in, and most enjoyed working in environments that are what I call kind of best-of-best environments.

People who have worked on my team in the past know that I often use the phrase 'top gun', from the movie Top Gun, because I really do like those environments where you've got a bunch of people who are sometimes competitive with one another.

They're not always easy to deal with, you know. But, they fly in formation and have high personal standards of excellence. And they have impeccable teamwork.

It's not always an easy environment, but I find those environments enormously fun and I tend to create teams that work like that. I think that's a success factor, and certainly, as I look at life sciences, I see a Top Gun kind of team that I'm very proud of.

Externally, I've been very lucky because IBM is a company that has enabled my growth. There are so many different things that can happen, different kinds of positions one can have and, therefore, I didn't have to leave this company to go someplace else to get marketing experience, to have the opportunity to run a business, to do a strategy job for IBM Research. I could do all of that and still work for IBM.

That has been enormously enabling for me because I've been able to constantly learn new things in all the jobs. IBM's view on making everybody feel welcome and providing an environment where people can do their best has been helpful to me as a woman because I've never felt the kind of isolation that I did in past times in my scientific career.

I think this probably holds true for women and other underrepresented minority groups in science and technology.

LASEWICZ: Well, that wraps up all the formal questions I had. Thank you.

[END OF INTERVIEW]