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LIVE BETTER LONGER:  
**Secrets of SuperAgers**

FREE WEBINAR / 4pm ET (1pm PT)



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presented by

**afar** american federation  
for aging research

**Prevention**

## TRANSCRIPT

Sarah Smith:

Welcome, everyone. I'm so glad you could all join us for the latest in the Live Better Longer series. Today we are talking about the Secrets of SuperAgers. I am Sarah Smith, the editor in chief of Prevention.

I love being part of the Live Better Longer series because there is so much fascinating work being done around aging that I'm excited to learn about and to share with you through these conversations with researchers and other experts. Live Better Longer is brought to you by AFAR and Prevention. AFAR is a leader in making sure science happens and Prevention is, I think, one of the very best platforms for learning about that science.

Today I'm honored to be talking to **Sofiya Milman**, who is the principal investigator of the [SuperAgers Family Study](#), which we are going to talk a lot more about because it is really innovative and exciting to be learning from our longest living fellow citizens. Speaking of, we also have an extra special guest, **Hilda Jaffe**, who is herself a SuperAger. So, let's dive in. Welcome, Sofiya. Welcome, Hilda.

I'd like to talk, as we start, not necessarily about aging, but about living because I think at the heart of our conversation today is living well as we age. So to start us off, Sofiya and Hilda, would you share with us what your best decade of life has been so far and why that is or was? Sofiya, would you share that with us?

Sofiya Milman: So, I think my current. So, I'm entering my fifth decade: I'm in my 40s, and I feel I am in a good place now. I am more confident in myself, in my skill set I guess. I have my family by my side. I'm very happy with where my work is taking me and the things I've done and I'm really looking forward to continuing that. So, I think I'm quite happy with where I am right now.

Sarah Smith: That's great. We have a vote for 40s so far. Hilda, what about you? You've lived a few more decades than Sofiya and I have. What's been your favorite so far?

Hilda Jaffe: Well, my favorite is generally the one that I'm in.

Sarah Smith: I love it.

Hilda Jaffe: And so, that happens to be this one now. I'm starting a new decade actually, a new century and a new decade, but my favorite is really the one in which I am alive and well.

Sarah Smith: That is very inspiring to hear. I'm so glad to hear it because I was going to share that like Sofiya, I also am happy having enjoying my 40s, which my grandmother when she was 96 told me, "Oh, your 40s are going to be really great," and she was right, but she also seemed to love every decade that she was in and get a lot from it. So, I'm very happy to hear that, Hilda, and happy birthday, belated, but for entering your second century.

So Sofiya, let's talk a little bit about aging though before we talk more about the study. Can you explain why we do change, why some things do get harder for many people as they age? Because I think it's important to acknowledge what's going on in the body and in life, so that we can understand what effect your research might have.

Sofiya Milman: So, I think we all recognize a lot of the changes that occur with aging. We can think about them as progressive breakdown of certain biological systems and that contributes to physical dysfunction and dysfunction of different organs themselves.

What it is in particular that actually drives aging I think is the million dollar question that science is trying to answer, but the good news is we are beginning to unravel that science.

Scientists are beginning to understand at least some of the biological pathways that are contributing to more accelerated or faster aging

process and other pathways that may be slowing aging down, and as we continue to do this work, we feel just like we understand the biology behind heart disease and now we're able to prevent and delay a lot of the heart disease, so we can do for aging.

Sarah Smith: Thank you. Now Hilda, can you tell us a little bit about your experience as you've made your way through the decades? Have you experienced changes in your physical health and your life that you think are important for just overview for us to know about?

Hilda Jaffe: Yes, there certainly have been changes and a major change is when I moved from living in a house in a New Jersey suburb with a car 12 years ago into New York without a car and where I was forced to walk everywhere, and I immediately became healthier! Within a few months, I lost weight and was much more limber and more energy having come from a somewhat sedentary lifestyle and that was a real change.

Sarah Smith: What a great reminder, Hilda. What a positive change that you shared and that at any stage in your life you can turn that corner. That's great to hear. Are there other good things about being in your 90s or 100 that you could tell us right now?

Hilda Jaffe: Yes, people get up and give you a seat in the bus.

Sarah Smith: Great, good, they should. Although, it sounds like you might not always need it.

Hilda Jaffe: But not really, everyone says, "Oh, you are my role model." I must be the role model of about 1,000 people by now. But yes, it's that there is some deference.

Sarah Smith: Interesting, thank you, yes. Sofiya, tell us why it's so valuable to study people like Hilda. Will you give us an overview of the SuperAgers Family Study and your goals with it?

Sofiya Milman: Sure, so I think we all recognize that people like Hilda are remarkable because they not only live long, which is impressive in itself, *but they also maintain their health as they get older.*

So, these individuals are really remarkable because they show us that it is possible to live a long and healthy life. And once we recognize that, we understand that a healthy longevity is within the realm of the human biology, within the realm of the human body. And so, then we hope to understand what is it that's unique about individuals like Hilda, and by learning the science behind what contributes to their healthy longevity, we hope to make that available to everyone else because we know people like Hilda are quite unique. It's not every day you meet someone so impressive.

And so, that's really the goal of the SuperAgers Family Study. It is to gather together the largest group ever, I would say, of individuals who are SuperAgers.

And in the case of our study, we define that as being age 95 or older and having a generally normal cognitive functions as someone who can actively participate in the study, and currently only one in 6,000 individuals in the United States are 95 or older.

So, that's already relatively small and an elite group of individuals, and we hope to enroll 10,000 SuperAgers as well as their children and the spouses of their children in order to study the genetic contributions, how their genes contribute to their healthy longevity, and ultimately we hope to use that information to make therapies, to make treatments based on what we learn.

Sarah Smith: That sounds really exciting and fascinating and I look forward to hearing that you've gotten your thousands of participants. But Hilda, can you tell us why you wanted to be part of aging research? Why does that matter to you?

Hilda Jaffe: Well first, curiosity I would think, and just now listening to Sofiya, when people ask me, and I get this all the time, what do you attribute your longevity? And, one of my answers is pick your parents, genetics. My mother lived into her 90s, my father in his 70s, but my mother was very clear, her body wasn't so great, but her head was very clear. So, that's one of my answer answers on that. And so curiosity, I really want to know how I tick, why I am so lucky, and that's a big part of it is luck.

Sarah Smith: I'm interested that you said that because, of course, I am also tempted to ask you your particular personal secrets. But I do know that it's not so simple as walk every day, although it sounds like it's certainly helped you. Sofiya, would you talk a little bit more about genetics too--genetics versus lifestyle and how that's part of the study?

Sofiya Milman: Absolutely. So in some of our prior work with SuperAgers, we have noticed that there wasn't really anything unique about the SuperAger's lifestyle, but we wanted to really do a scientific investigation right into that because we are a scientists. So, when we compared SuperAgers to people who were from the same birth cohort--meaning they were born during the same time as the SuperAgers, but didn't become SuperAgers, or had the average life span--we found that there were really no differences in terms of their alcohol intake or smoking habits or exercise habits or dietary habits.

And, that was really eye-opening for us. We saw it, but we weren't sure that that was going to be what we would find, and then later on we actually looked at the children of SuperAgers and compared them to the children of non-SuperAgers. Now, these children were 65 years and older. So, one group had a parent who was a SuperAger and the other group didn't, and again, what we found and in some ways surprised us: we found that the children of SuperAgers had less heart disease despite having the exact same lifestyle and socioeconomic status and dietary habits as the children of non-SuperAgers. So, that really motivated us to look at genetics.

Sarah Smith: Can you tell us a little bit more, Sofiya, about what you're actually asking for from people when they're a part of the study? What are they giving you? What are you then looking at when you have that data?

Sofiya Milman: Absolutely, so we ask participants to enroll online. We have a secure study website and when individuals enroll, there are questionnaires about their past and present health that they can answer, and once they complete those basic questionnaires, we actually mail them a kit.

This is the kit that we mail them, SuperAgers Family Study. It's a box essentially: it comes with an instruction manual, and a DNA collection kit.

So, what this DNA collection kit is, it's essentially a tube that an individual can put saliva in and we ask just for a little bit of saliva, and then they mail this tube back to us in the same box and there's a prepaid return label on it.

We use that saliva to isolate DNA and order them to be able to study the genes in that DNA, and then we will link information from the genetics to the health history that the people reported to us and try to identify the genes that are contributing to healthy longevity.

Interesting. So Hilda, you mentioned picking your parents, but there's longevity in your family.

Right.

Sarah Smith: Can you tell us more about them and what you maybe learned about aging from them? You couldn't literally pick them, but you must have learned some things.

Hilda Jaffe:

Sarah Smith: It doesn't quite apply because my mother was physically dependent, but very clear. She was doing crossword puzzles into her 90s as I do, but as my son does and as his son does.

Hilda Jaffe: But my lifestyle really changed earlier than that, when my husband had a heart attack. I was in my 70s at the time, he in his early 80s, and we just changed diet immediately and he became much more active physically than I did. And so, I was not very much interested in diet and foods and things like that before that, but we immediately went to a low fat, low salt, and I think that made a difference, but that was 70 years in.

Sarah Smith: Well, that's an interesting point. Sofiya, I'd like to jump to your thoughts on, are there things that you think we can do... I want to talk more about genetics, but to the point that Hilda's making: are there things that we can do to make the most of the genes that we have?

Sofiya Milman: Absolutely, and I'm so glad that you brought this up because you're right, we can't really change our appearance, we can't really change our genes, but some things are in our control, and so lifestyle does matter.

I don't want anyone to walk away from this thinking, "Oh, it doesn't matter if I eat a healthy diet or not, if I exercise or not," because it does and it certainly can extend the healthy period of one's life.

So, I would certainly advocate for regular exercise and a healthy diet and not smoking by all means. So, all of those things that were always thought are important to do, I would agree that they are important to do.

And interestingly as Hilda pointed, doing crossword puzzles, so staying cognitively active, cognitively engaged, that has actually shown to delay the onset of dementia.

And so, I think those things are all important, but I think in case of these SuperAgers who are very, very rare, what we're finding is that it's probably not all due to lifestyle, but a lot of it is due to genetics as well. And sometimes even despite a poor lifestyle, they can still live a long life, and that's where I think the genes come in: that the genes may actually sometimes protect them from the impact of a bad environmental exposure, but all of that being said, leading a healthy lifestyle is very important I think for all of us.

Sarah Smith: I think it's interesting because sometimes people hear the genetics part and they think, "Well, too bad for me," but because of your work it seems like we will be able to learn something from the genetics of someone like Hilda. So, can you tell us more about what you hope to learn and take from that, that would affect people who maybe don't already have those genes?

Sofiya Milman: Right, absolutely. So, what I think we always try to convey is it's very nice if we identify the genes that contribute to longevity, but what does it do for the rest 99.9% of the population?

And the answer is, as you point out, Sarah, is we can use that information to understand how those genes are actually contributing to a healthy longevity.

And once we understand how that's done and maybe what biological pathways are being controlled by those genes, then we can start creating therapies, drugs that will mimic the beneficial effects of those genes.

So, we're *not really thinking about gene therapy necessarily*, but we're really thinking about creating drugs that someone can take to mimic that beneficial effect.

Just like if someone is born with a family predisposition or genetic predisposition for high blood pressure, we don't just let them walk around with high blood pressure. We have medications that can act on those biological mechanisms that will lower their blood pressure.

So, we're thinking the exact same way about aging. We want to identify those pathways that are contributing to aging, we can create drugs that will slow down the aging process.

Sarah Smith: Are these drugs that people would take... I know this is far in the future, but that people would take from the time they're 30 or that they would take later when there's more signs of decline?

Sofiya Milman: I think that's a good question and I don't know that we have the answers for it. Ideally, you wouldn't want to treat young people with a medication that they would have to take their whole life. Certainly, we wouldn't want to start when they're children. So, we're thinking that we can probably identify a point in maybe middle age when would be the right time, find certain biological markers that will tell us this person is declining at a fast rate or is aging faster.

So, maybe if you have someone like Hilda, maybe they don't need to be on this drug at all. So, you want to identify people I guess who are at risk and what are those markers for individuals being at risk and then maybe individualize treatment either when you started or who you treat and who you don't.

Sarah Smith: Interesting, thank you. But Hilda, back to you and the life that you live, I would like to know more about what you think might be contributing to your longevity or in addition to that, what makes for a good life in your later years?

Hilda Jaffe: Well, I think I am contributing to my own longevity by staying active, by keeping moving, physically moving and mentally moving. And so in line with that, I always did, while I was living and bringing up my children and working, but I always did volunteer and community work, so that I was outside my own sphere and outside my own family.

And when I moved into New York 12 years ago now (I was 88 at the time), I looked around for volunteer activities and having gone to museums all my life and so on, I started to see about volunteers there and I realized I didn't have the depth of knowledge that I would need, let's say, in a museum about their specialty, but I did find New York Public Library on 42nd Street library, and so, I volunteered there to work first at the information desk.

At that point, you needed to have an apprenticeship there of six months before you could do anything else and you had to read a lot and take all the tours, but it was about the building and about the collections, that was very doable.

At the end of that, I volunteered to become a docent and to lead tours, and with that I was given the first that they had and they still do, is a tour of this magnificent building, of the main building of the library on Fifth Avenue and 42nd Street. And so you are given a huge script, it's a one hour tour and you have this huge script that you have to learn about different rooms and the different collections and you lead people around and are able to answer questions and I was able to do that and then after a while I was promoted to also being able to do a tour of exhibits. So, each exhibit is special and you have to learn that it is a script. You can carry the script you want, but the basics are there, which meant that I would have to learn new things.

Sarah Smith: It sounds like an interesting combination of being out in the world, interacting with people, and learning new thing.

Hilda Jaffe: And learning! Of course, then along came COVID and everything stopped. And, this is a real problem and I think it's something that maybe we should be talking about, about reentry after COVID and what you pick up again and what you don't. I needed reappraisal of what I've been doing: Do you want to think about it or can you do those things and do people want you to do those things?

And so, I went back to doing the information desk, that's easy, and then I decided I didn't want to do the building tours anymore because that's more strenuous. It's some stairs involved, you're herding cats with 20 people all the time, but I decided to continue to do the exhibits and we have now a permanent exhibit called Treasures of the Collection, and it's an hour and it's really quite wonderful. So, that's what I do perhaps one a week or sometimes two a week, but the script sometimes changes because they rotate it every three months, so they rotate it in or out, you learn new things.

I used to go to the theater a lot and it did wonderful and I would've liked to, but my hearing isn't good enough now for that and I miss too much and it's very expensive. And so, I've stopped doing that, but I'm still going to concerts and the opera because those I can hear and understand. I don't need the specific words for that, but this question of reentry after two years that I've been talking to people about. Do you go back to doing exactly what you were doing or not?



Sarah Smith: And, where have you landed on that?

Hilda Jaffe: I think that you reappraise what you can do well and what gives satisfaction.

Sarah Smith: I like that attitude of reappraisal! Sofiya, could I ask you: I think this is so interesting that Hilda is spending a lot of time learning, but also showing people around, meeting new people, going out to events in the city. How do you think that community aspect or relationships with other people... Is that something you're looking at? Is that something we should be thinking about?

Sofiya Milman: I think so. There is some research to suggest that people who have a more positive outlook on life, who may be more engaged do better. That certainly seems to be a trait among SuperAgers, although we don't know if it's something they developed later in life or they always had it, but it does tend to be linked with being a successful ager, and certainly we have evidence of being connected to other people, to activities, to one's community, does protect one's cognitive function.

So, staying engaged I think is very important. Also from an emotional point of view, I couldn't help but think about one participant who we had in one of our aging studies who was 104 years old and was doing very well, and then the pandemic struck and she was living in an assisted living facility and they wouldn't allow visitors in and they wouldn't allow her hairdresser in.

One day she just went to sleep and never woke up because she just became very lonely. She stopped eating and drinking and that loneliness really took its toll on her.

So, I think it was certainly prudent to protect our older adult population during the pandemic, but I think we have to think about how we do it the right way because isolating them from those who they care about, from society may not be the best thing for them either. So, we really have to maybe rethink this.

Sarah Smith: That's really interesting. Hilda, is there anything you want to add about other people in relationships or loneliness?

Hilda Jaffe: Yes, I find that when people talk to me and they start talking about you're my role model, then I say, "Okay, go to it then. Don't slack it off."

Sarah Smith: That's good for all of us. You're our role model, but we've got to do something then.

Hilda Jaffe: Do something. Be deliberate, be intentional.

Sarah Smith: We're getting a ton of good questions coming in from our audience chatroom, but I want to ask a couple more of you two before we go to those. Hilda and Sofiya, we're just really interested in what you are excited about this study finding.

Hilda, what do you hope that Sofiya and her colleagues will discover or be able to share with the world through your help and others?

Hilda Jaffe: I think probably the key thing is what an individual can do, what you can do for yourself and not rely on other people to provide you entertainment or something, to be as self-reliant possible and as you physically can be, but you certainly can be mentally self-reliant and read and do crossword puzzles. There's always that or games or things like that, but try to get out into the world one way or another, whether it is figuratively or really out in the world.

Sarah Smith: That's a great reminder. Sofiya, what about you? What are you really excited to learn?

Sofiya Milman: So, I'm really optimistic that by having a very large number of SuperAgers in our study, we can begin to untangle the complexities of biological contribution to healthy longevity because up until now our largest groups of SuperAgers were 1,000, 2,000 people, but we're talking about probably very rare genes and each individual may have their own set of rare genes that may be contributing to their longevity.

So it is only after we have a big enough group of individuals--10,000--we can begin to pool that information together to really understand the biology. So, I'm very excited about what this study will teach us about that.

Sarah Smith: That's really great. We're going to put a slide up later, so people can be sure to get the site, but can you remind us, who again can be part of your research and how they get to it?

Sofiya Milman: Absolutely, so anyone who's age 95 or older can participate. We also enroll their children, but in order for a child of a SuperAger to participate, the SuperAger must be enrolled in the study and we're also including the spouses of the children. If they have an in-law who's a SuperAger, then you can participate as well. We're actually looking at families participating together, and in order to enroll in the study, you can go to our study website, which you'll show later and you can enroll.

Sarah Smith: Great, and isn't there a community aspect to it too? They're citizen scientists in a way with you being subjects, but there's a way for them to connect, am I right about that?

Sofiya Milman: Absolutely, so there's actually AFAR-initiated a [community for SuperAgers](#). We are people who are SuperAgers or have family members or friends who are SuperAgers or just interested in healthy longevity, can come together and share ideas, share their stories, and can have camaraderie around that common theme.

Sarah Smith: Great, thank you. I am going to go to some of the questions that are coming in from the audience. They're really terrific. So, let's start with this: Sofiya, do you ask participants about their attitudes and beliefs about aging and could you know also speak to whether there's research about that on longevity?

Sofiya Milman: So, in our studies we don't ask them about their attitudes specifically about aging. We do ask them about their attitude towards life in general, how they're affected by challenges. So, we try to understand their perspective on life overall.

Sarah Smith: Are you asking that one time or are you coming back to people over time?

Sofiya Milman: We typically have asked that only once from the SuperAgers, but you're right, one's attitude towards life may change as we get older and wiser. We may change our perspective, we may prioritize things differently. So, I think that's a fair point.

Sarah Smith: Hilda, someone would like to know if you were into sports during your life. You mentioned walking recently, but what about in other times in your life, sports, exercise?

Hilda Jaffe: No, I was never really a sports person. I went to camp in the summertime and did all the usual things, but nothing really other than walking.

Sarah Smith: And, do you still go out walking?

Hilda Jaffe: Oh, I do a lot of walking. On my phone, I have a step counter, and so today because it's raining here, I did not go out to walk, but I walked in the hallway in my apartment building, so I did my mile that way.

Sarah Smith: Well, no excuses for you, Hilda. I'm impressed. A lot of people say, "Rain, I'll go tomorrow," not you!

Sofiya, a question for you. Do you see potential for biomedical researchers to collaborate with other disciplines, an interdisciplinary approach to understanding SuperAgers?

Sofiya Milman: Absolutely, I think it would be very valuable to put people from different disciplines together. We are doing that a little bit where we bring biologists together with data scientists to try to understand how biology works because as we're learning more and more about biology, our data is getting bigger and bigger, and so we have to rely a lot on our

computational colleagues and data scientists. But I think there are opportunities for everyone to come together and I think if we do come together and we tackle this from all different perspectives, we will do better.

Sarah Smith: Here's a detailed question for you, Sofiya: Do family members need to be medically tested, do their saliva too? What type of information are you getting from the family members?

Sofiya Milman: So, everyone who is enrolled in the study, including the family members, respond to questionnaires about their health, about their lifestyle habits, about their family's health, and they all get the saliva kit in the mail for DNA testing. We don't do any other testing. Most of the DNA information will be kept confidential. We don't share the results of genetic tests because we don't yet know what they mean. With one exception, if individuals would like to know their genetic ancestry, where their families originated, we will be sharing genetic ancestry results.

Sarah Smith: Great, thank you. Here's an interesting question: Is it difficult to differentiate between cause and effect? Does Hilda and other SuperAgers do crossword puzzles and is that helping them or is it that... Or, do they solve the puzzles because they're SuperAgers and that's what they do? Which one first?

Hilda Jaffe: I think the question is, which came first, the chicken or the egg?

Sarah Smith: What do you think, Hilde?

Hilda Jaffe: If that is for me, I think there's no answer to that really. I think if you're lucky, everything fits together and it's working simultaneously, and look, it's a big question of living in New York. What I have to do all the time is keep an eye out for the crazy people riding bicycles who go right through the pedestrian crossings. So, it's strictly luck if I see them and tell them to stop and they get very angry at me when I tell them to stop.

Sarah Smith: You should say, "I'm 100, you have to listen to me."

Hilda Jaffe: Literally, some of them give me the finger.

Sarah Smith: Well, rudeness doesn't discriminate I guess. Sofiya, what do you think about that cause and effect question? Will we ever know?

Sofiya Milman: So, I think there is a way to find out. I agree that it's challenging and sometimes you don't know what came first, but this is where experimental science becomes really important. So, if someone is not doing puzzles but now you have half of the group doing puzzles and the other half is not doing puzzles: it's the half that's doing puzzles, are they doing better or not compared to where they started out? So, you can create experiments this way. So, I think there is a way to disentangle the cause and effect, but it would require experimentation.

Sarah Smith: Great, another question about the data you're collecting, a question about why the child's spouse, who's not genetically related to the SuperAger: why can they be involved?

Sofiya Milman: Great question. So in order for us to identify what genes are contributing to healthy longevity, we need a comparison group because I can say, here's a group of SuperAgers. How do I know what genes are really contributing to longevity? I don't. I need to compare them to a group that maybe has the average lifespan or comes from the general population that is not enriched for longevity.

And so, the spouses of the children of centenarians serve as that comparison group that comes from the general population, and what's also valuable about them is they come from the same environmental exposure. So, spouses share the same household, they usually eat the same foods or breathe the same air and they have a common socioeconomic status. That will eliminate a lot of those environmental differences that we're always concerned about and allow us to hone in on the genetics.

Sarah Smith: That's so interesting. Thank you for explaining that. Another question about joining the study from someone who is 94: should this person be patient and wait until they're 95? How long are you going to be enrolling people?

Sofiya Milman: So, we're hoping to continue enrollment for three years, so there's still time to enroll. So I would say yes, please stay patient and we'd love to have you when you turn 95.

Sarah Smith: That's great. Sofiya, here's another question for you: How do you think the SuperAger study will benefit other existing studies, the question asker says, even ones not specifically looking at SuperAgers? Is there data that other researchers will be able to use and insights that are going to go beyond what you're looking at, do you think?

Sofiya Milman: Absolutely, so one of the wonderful things about this study is that all the data that we're collecting, including the clinical information and the genetic information, will be available to other researchers, but the data will not be connected to individuals' personal information. So, when we're going to be sharing this data, the other researchers will never be able to identify that individual by name. So, they won't know who they really are. It's just their clinical information, their genetic information will be deposited again in a protected database where it will be stored

Then Researchers who are qualified researchers will have to go through a vetting process and who have legitimate research questions will be able to access that information and try to answer additional research questions. We're very excited about that because we feel the more researchers, the right scientists have access to that data, the more we will learn.

Sarah Smith: Great, that's very exciting.

Hilda Jaffe: Can I put in on that too? I hope this data will be shared with drug company researchers, and the reason that I say that is that people like me are off the charts as far as drug research is concerned.

Sofiya Milman: I just recently, because I have osteoporosis, it affects everybody more or less, and so one of my doctors decided that it's time for me to go back on something like Fosamax, but Fosamax, there was something else that he wanted. He said there's no data, there's absolutely no data on people older than 90 on that. And so, if this family research can be shared and you do ask about what medications you take, if this family research can be shared with drug manufacturing research, that would be helpful.

Hilda Jaffe: Absolutely, so the data will be available to everyone. So, if there are researchers who are studying drugs and want to understand about what medications older people are taking and that are being taken safely, they will absolutely have access to it. We're not going to restrict data use only to academic institutions, let's say. We're absolutely opening it up to pharmaceutical investigators as well.

Sarah Smith: Good, thank you.

That's interesting because we have another related question: do you think this research can benefit disease-specific research on things that affect people as they age: cancer, Alzheimer's, heart disease? Do you see connections there?

Sofiya Milman: Sure, so I think what most people don't recognize is that aging is actually the greatest risk factor for all of those diseases that you've just mentioned. So, aging or being of an older age is actually a greatest risk factor for heart disease, for cancer, for diabetes, for Alzheimer's disease, for osteoporosis, you name it. Age is the greatest risk factor, greater than cholesterol for heart disease, so forth and so on. And, I think that's not something that people recognize, but when you're doing research, you always account for age because everyone knows you get heart disease when you get older. You don't usually get heart disease in your 20s and 30s. It's a known fact, but we don't acknowledge it that way.

We believe by delaying aging and by slowing down the aging process, we will actually have an impact on all of these diseases simultaneously. So, by understanding the biological drivers of aging and biological drivers that contribute to healthy aging and by being able to manipulate those, we'll have benefits on all of these conditions.

Sarah Smith: That's a really important and interesting way of framing that. Thank you for explaining how that all fits together. Throughout, we had a lot of questions just about, what can I do if I don't have the genetics?

And, we talked about a few things. We talked about exercise and Hilda's amazing volunteering and everything, but I just wonder, is there anything else that either of you feel that we should mention or leave people with for... If not exactly, does it delay aging? We don't know maybe, but what makes your life full and living well no matter what your age and maybe contributes to delaying the aging? Are there other factors, food, other relationship issues, other things we should think about? Hilda, do you have anything else to add on that front on how you live?

Hilda Jaffe: I'm just trying to think about it. I don't have any family living nearby. My son is in California, my daughter in Israel, grandchildren are scattered around the world. I have some friends, but we now have a FaceTime and we now have WhatsApp, and while I don't travel anymore, I today spent five minutes in the playground with a two year old and this is in lieu of physically touching, but her face lit up when she saw me on the screen. I'm a face on the screen, that's all she knows of me, I don't really have a whole body. But I think we should be taking advantage as much as we can of these wonderful electronic advances.

Sarah Smith: That's great. Such a great reminder on how that really can connect us. Anything else from you, Sofiya, that people should remember about living well?

Sofiya Milman: I would just say I think it's important to recognize that it's not inevitable that disability and disease will come with aging. I think Hilda is a perfect example that we can really age well and maintain our independence and maintain our quality of life.

That's really what it is about: Aging well, in order to be able to maintain one's independence, maintain a good quality of life as you continue to derive enjoyment from life. It's not about living 120 years, it's really about getting the most out of your years.

Sarah Smith: Great reminder, thank you. It's so terrific hearing from both of you on this subject. You're both so thoughtful and interesting on it. I'd love if we could show our last couple of slides, so we can make sure people know how to become part of this work if they would like.

This [superagersinitiative.org](https://superagersinitiative.org) site is where you can learn more about the community and how to join the family study.

And of course, follow AFAR and Prevention on social media, so that you can hear more about the Live Better Longer series and what's coming up next in 2023, and as always, I really encourage you to support AFAR on the important work that they make possible.

So, thank you so much, Sofiya and Hilda. You've been really illuminating and fun to talk to, and thanks to all of our audience for making this a great afternoon. Enjoy the rest of your day, everyone.

Learn more at [www.superagersinitiative.org](http://www.superagersinitiative.org)

