



**Hadassah On Call podcast with Dr. Dan Eckstein and Dr. David Arkadir**

**Benyamin Cohen:**

This is Hadassah On Call: New Frontiers in Medicine. I'm your host, Benyamin Cohen. In each episode of this podcast, we'll get an inside look at what goes on behind the scenes at one of Israel's premier medical centers. We'll travel to Jerusalem to meet up with the doctors and nurses at the Hadassah Medical Organization. From striving for peace through medicine to performing surgeries with robots, they're working on medical breakthroughs that are impacting people around the world. That's what Hadassah is all about: the power to heal our world together. From cornea transplants to developments in pediatric oncology, we'll learn about the latest cutting-edge research coming out of Hadassah Hospital. All that, plus the inspiring stories of patients who have recovered from near-death experiences. Our appointment starts now. This is Hadassah On Call.

**Benyamin Cohen:**

Hello everyone, and welcome to the show. We are talking all about Parkinson's disease today and I'm thrilled to be joined by two esteemed doctors from Hadassah Hospital. First, we're joined by Dr. Dana Ekstein. She's the chair of the Department of Neurology and the co-director of the Epilepsy Center at Hadassah. And we're also joined by Dr. David Arkadir. He's a senior neurologist and head of the Parkinson's Disease and Other Movement Disorders center at Hadassah. Both of you, welcome to the show.

**Dr. Dana Ekstein:**

Hi. Good to be here.

**Dr. David Arkadir:**

Hello.

**Benyamin Cohen:**

We're recording this on Zoom, so we can still see each other. Dr. Ekstein, I want to start with you a little bit. Can you tell us a little bit about your background and how you ended up at Hadassah?

**Dr. Dana Ekstein:**

Actually, I started up at Hadassah. I have been here for more than 30 years, I think. I started to learn medicine here at Hadassah and actually, since then only for, I think, two periods, I haven't been here. So there was a period of a few years – 25 years ago – with the internship and serving in the army. And then another couple of years – about 10 years ago – when I specialized in epilepsy in Boston, in the US. But I have been here forever.

**Benyamin Cohen:**

So you're in charge of the department of neurology. Can you tell us a little bit about that department at Hadassah, and specifically how does the treatment of Parkinson's fit into that department?

**Dr. Dana Ekstein:**

Yeah, so this is actually the oldest department of neurology in the country and one of the biggest ones here. We give services in the two campuses of Hadassah, so both in Ein Kerem and Mount Scopus. The main services are given in the Ein Kerem campus. Here we have a total of 42 beds for inpatients, and they include also a stroke unit and four intensive care bed unit, and also a lot of outpatient services and consultations. Actually, we give all the services of the different subspecialties of neurology, from the acute stroke to all the chronic patients with all the neurological diseases.

**Dr. Dana Ekstein:**

Now Parkinson's is, of course, one of the main diseases we have in neurology. Especially nowadays, when the population is becoming older, we have more and more Parkinson's patients. And as I'm sure Dr. Arkadir will say in more detail later, we have actually the biggest center in the country treating Parkinson's patients.

**Benyamin Cohen:**

Yeah. So Dr. Arkadir, how did you end up at Hadassah?

**Dr. David Arkadir:**

Like Dr. Ekstein, I'm a product of Hadassah. I started learning medicine here when I was 21, after the army. Like Dr. Ekstein, I also did my PhD at Hebrew University-Hadassah Medical School, and following one year of internship at Be'er Sheva, I came back to Hadassah, did my residency here, and then left to New York to Columbia University for two years specializing, doing a fellowship in Parkinson's disease and other movement disorders. And came back here to continue working with the team here.

**Benyamin Cohen:**

The topic of today's episode is all about Parkinson's, and to me it's fascinating as a layperson, someone who's not a doctor specializing in this, it's hard to tell which diseases are popular, and if they're only popular or common because we hear about them. For example, like I'm sure everybody knows, obviously, Michael J. Fox is probably one of the most famous living people with Parkinson's today. I think Muhammad Ali had a form of Parkinson's. So we laypeople may think it's common because of that, but how common is Parkinson's disease, and are cases increasing?

**Dr. David Arkadir:**

First, it's a relatively common disease, although worldwide close to one percent of the population are affected by the disease. When you're looking at people, like the elderly, the percentage can be even

higher. So first it's a common disease. It might be even more common in certain populations. We'll speak about this maybe later. The number of patients with Parkinson's is rapidly increasing. This is mainly because our longevity is longer. People live longer, and Parkinson's disease, although it's may attack people at younger age, it's mostly a disease of people above the age of 60, 70. So there are more people who reach old age. But probably there's also in increments, some slow increment that is not just because the population is becoming older. But this is a bit debatable, so data is still controversial to some degree. But yeah, there are more and more Parkinson's patient, and actually it's a common disease. We said one percent, but probably there is even higher percentage that are not diagnosed. So when you walk in the street, you can sometimes detect people with Parkinson's disease; they are not even aware they have Parkinson's disease.

**Benyamin Cohen:**

Before we get too far down the path here, can you describe what Parkinson's disease is? What's actually going on inside a person's body?

**Dr. David Arkadir:**

Yes. Parkinson's disease is one of the diseases which is in the neurodegenerative group, so it means that neurons are lost, nerve cells are lost, for an unknown reason. Although we know some etiology, we don't know everything: we don't know all the processes. And Parkinson's disease is unique in that a subtype of neurons are more affected. And this is a population of neurons that secrete dopamine. Dopamine is a neurotransmitter, a chemical in the brain, that is required to initiate movement, that is required for the feeling of pleasure, to avoid depression, as we'll speak about maybe later. But this is a subpopulation of neurons that is mostly affected in Parkinson's disease, and this is what distinguishes it from other neurodegenerative disease.

**Benyamin Cohen:**

Dr. Ekstein, as the head of the department there, we talked about how this primarily affects possibly an older population, but I'm curious to know if there's other demographics that you could tell us about? Are you seeing, for example, an increase in Israel compared to other countries, or an increase among Jews, or Ashkenazic Jews, or Ethiopian Jews, or Arabs? Is it attacking all demographics equally?

**Dr. Dana Ekstein:**

Parkinson's disease does attack all those populations, and here at Hadassah we do see all those populations. We see Jews, we see Arabs, and we have a diversity of patients. But there are also types of Parkinson's Disease which have certain genetic backgrounds, and then actually parts of different populations, let's say part of the Ashkenazi Jews, or Sephardic Jews, or people coming from a certain area of the world may be more affected than others.

**Benyamin Cohen:**

Are there external factors, like if someone lives near a factory or industrial type things?

**Dr. David Arkadir:**

Yeah, so there is some evidence that people that live in rural areas worldwide are probably a bit more affected. This is a hint that there are some environmental factors, but in the vast majority of patients, we cannot trace a clear environmental factor. So probably there are some factors, but for the majority of people, they are not a major factor.

**Benyamin Cohen:**

So you mentioned a genetic marker for Parkinson's. For example, my uncle was recently diagnosed with Parkinson's. Should I be worried? Is that something that other people in our family should look for?

**Dr. David Arkadir:**

You shouldn't be worried and probably shouldn't look for it, but yeah, probably you're a bit at higher risk if you have a family member affected by the disease. We know, as Dr. Ekstein already said, that especially in the Ashkenazi Jewish population, 30% of patient with Parkinson's disease has a gene that is causing the gene. There is a gene in one member of the family, so there is a high probability that the other family member will carry the same gene. So people in the family are at higher risk, at least in some families.

**Dr. David Arkadir:**

But to calm you down in a way, we know that even if you have the gene, so for each gene it's a bit different, but the majority of people who carry the gene, the genes just put them at risk and still they won't have Parkinson's disease. So it's just determines a certain risk, but it's not a determinist gene.

**Benyamin Cohen:**

We think of Parkinson's disease; the first thing that comes to mind, it's somebody shaking their hands. Is that the first symptom? Is that how you would know: I should go get something checked out?

**Dr. David Arkadir:**

Yeah, so tremor is a common symptom in Parkinson's disease. In many cases, this is the symptom that brings a patient to the neurologist. But Parkinson's disease can be expressed in many ways, and the first symptom can be different between different patients. So with one person we see a tremor, but other patients complain that they have difficulty with motor activities, such as handwriting or using a fork. And some people have more of a gait problem, which is the initial symptom.

**Dr. David Arkadir:**

Parkinson disease is mostly motor, and people come to the neurologist because of the motor symptoms, but in many cases there are other non-motor symptoms that start many years before the motor symptoms. So it's common for people with Parkinson's disease to lose their sense of smell many years, even 20 years, before they develop Parkinson's disease. Some people shout at night, or acting out their dreams, which is also a common symptom that can precede the disease in many cases. Some people have depression.

**Dr. David Arkadir:**

But it's important to understand that many people will lose their sense of smell or will have depression and it's not because of Parkinson's, and they will never develop Parkinson's, but for some people this is their first symptom. It's also important to emphasize that not all patients will have tremor. About 20% or 15% of patients with Parkinson's disease will never develop tremors. So it's not the equation: tremors equal Parkinson's. It's not right. Some people with Parkinson's will never have tremors. Some people with tremors, it's not because of Parkinson's.

**Benyamin Cohen:**

So we talked about some of these physical manifestations of the disease. As a patient progresses, and we know this is a very progressive type of disease that gets worse over time, can it impact internally? Can it impact their brain function, or lead to things like, I don't know, amnesia or a dementia?

**Dr. David Arkadir:**

Yeah. So in many cases, in the majority of cases, even after many years of Parkinson's disease, people develop some cognitive issue, but the severity of this cognitive issue, there is very large variability. Some people will develop major cognitive issues quite rapidly, within few years, and some people will have many years of disease without major cognitive issues. So cognitive issue, yeah its part of the disease, part of the non-motor symptoms, but again, it occurs not in everyone. Some people won't have major cognitive issues, but this is one of the possibilities.

**Benyamin Cohen:**

When we return, the doctors discuss optimism, realism and the psychological issues that surround a Parkinson's diagnosis. Plus, new treatments are providing hope for patients.

**Dr. Dana Ekstein:**

I think we are on the edge of very exciting ages where we'll have a much better treatment, and maybe prevention for some of the cognitive issues that we see in neurology.

**Benyamin Cohen:**

All that and much more after a quick break.

**Benyamin Cohen:**

With the COVID-19 vaccine now being delivered across the globe, Hadassah Hospital is at the forefront of caring for patients in a post-pandemic era. Hadassah recently opened a multi-disciplinary clinic to help treat people suffering from COVID after-effects – everything from lung damage to mental health issues. Keep up to date with everything that Hadassah Hospital is doing to help combat this deadly disease by visiting our website at [hadassah.org/covidupdates](https://www.hadassah.org/covidupdates). That's [hadassah.org/covidupdates](https://www.hadassah.org/covidupdates). We're posting frequently about how our doctors, nurses and researchers are working to roll out the vaccine and prevent the further spread of COVID-19. You can also follow Hadassah's latest coronavirus updates on our social media accounts on Facebook, Instagram and Twitter.

**Benyamin Cohen:**

And now, back to our conversation with Dr. Dana Ekstein and Dr. David Arkadir.

**Benyamin Cohen:**

So Parkinson's is obviously going to be a life-altering disease for somebody. It's going to be a progressive disease. Do you think people feel stigmatized when they get diagnosed with this disease?

**Dr. David Arkadir:**

Yes. In many cases, yes. It's always dependent on the individual, and different individuals have a different concept of disease. Some of the individuals will have the diagnosis and then they will go and share this diagnosis with everyone, and actually will be started to be active and to look actively for new research, for clinical trials, try to support clinics that are dealing with Parkinson's disease. And some

other patient will hear the bad news, won't tell anyone, even won't tell their family member. Even when it's quite obvious, you can see sometimes people hide it. It depends on the society they are living in, but the most important thing depends on the individual. And I always emphasize with patients that the energy that you need to spend in order to hide things should be spent on fighting the disease, and doing physical activity, and making yourself better, and acquiring knowledge about the disease, and not hiding. Because there is nothing morally wrong with getting any disease, and definitely not Parkinson's disease.

**Benyamin Cohen:**

It's nothing they could have prevented. It's a disease.

**Dr. David Arkadir:**

Yeah, definitely. It's not them to blame, it's ...

**Benyamin Cohen:**

Maybe they feel because it's the kind of the disease that is going to require a lot of care from friends, and family, and possibly professional caregivers, and maybe people feel guilty that they're putting that upon their relatives.

**Dr. David Arkadir:**

It's true. Some people are afraid to be dependent. Some people saw elderly people with Parkinson's disease, and they have a concept of the disease. Some people saw other patients with a very advanced disease, so they imagine themselves in this stage. Some people saw people from other generations when treatment was not as good, so people deteriorated faster. So everybody has their own experience that they got through life, and each one reacts differently. And for some people, their disease is coming when they're in their best, for some people in their 50s or 60s. They see their friends in the peak of their career, and now they have to deal with Parkinson's disease. It's not easy for someone to deal with.

**Benyamin Cohen:**

Dr. Ekstein, as the head of the neurology department, I'm sure you see a lot of people who have diseases that get progressively worse, diseases of the mind, and it kind of prevents them from being their own true self.

**Dr. Dana Ekstein:**

Right.

**Benyamin Cohen:**

If there's a disease that prevents you from walking, at least you're still yourself in a wheelchair, and you can still think, and write, and do other things. But like these diseases of the brain, it's a whole other psychological conflict that goes on with these people. How do you help a patient come to terms with this diagnosis, with having a progressive disease?

**Dr. Dana Ekstein:**

It's really not an easy thing to do – especially some of those patients are young patients. But fortunately, I think over the last few years we have had quite progress. We have had quite progress in the diagnosis

and treatment of neurological diseases. So while maybe in the past, the only thing we could have said is just, "You have to live with it." Today we can offer those patients quite a few treatment options.

**Dr. Dana Ekstein:**

It's kind of a general question because the brain damage can come for different kind of diseases today, so we may have patients with immunological diseases that are many times diagnosed today, and we have good treatments for them. And on the other hand, we have patients with more degenerative diseases, like Parkinson's or Alzheimer's disease, where the treatments for the cognitive issues are less successful.

**Dr. Dana Ekstein:**

However, I think that in the future, we may have better treatment for those diseases as well, so I think we are on the edge of very exciting ages where we'll have much better treatments, and maybe prevention for some of the cognitive issues that we see in neurology.

**Benyamin Cohen:**

I was just reading Michael J. Fox's latest memoir and I didn't realize, like it really impacts ... because he's had it for 20 years now, 25 years now, and it's gotten so progressively worse, he was saying he can no longer write, and he can no longer type. He has trouble speaking unless the medication is just right. I'm sure it could lead to such depression in some people. Lewy Body Dementia is part of this wider family of diseases, and we all know about Robin Williams and what happened with him. How do you help prevent something like that, with patients getting in such a bubble of depression?

**Dr. Dana Ekstein:**

Of course, it's very important to collaborate with a psychologist and have patients focus on what they can still do, and learn how to live with their deficit and with their problems, and continue to exploit the functions that are still with them.

**Benyamin Cohen:**

Yeah. I guess it's a matter of the patients have to become both a realist and an optimist.

**Dr. Dana Ekstein:**

Right.

**Benyamin Cohen:**

So do you see something in common with patients who are resilient in the face of Parkinson's? What leads them to be positive and resilient?

**Dr. David Arkadir:**

I think patients that are generally positive throughout life are also relatively positive in dealing with the disease. Some people throughout life are more passive with reality, and some people fight against the reality. I have a patient, a quite famous patient in Israel who got Parkinson's disease, and then she built an organization, and managed to build a different support group, so she took the disease and she did something positive with it. And she's saying ... and she's right ... that to have a disease, or generally to get older is just to have losses; every day, every month, every two months you have a new loss, like you

said. You're losing the ability to write, you're using the ability maybe to speak properly in some cases. And it's either you are becoming depressed and pessimistic, or you understand that you have to fight it, to do the best you can.

**Dr. David Arkadir:**

People who fight it can also slow things. They will do physical activity; they won't let the disease take over them. And some people are more pessimistic, so we have to find the internal forces of the patient to fight the disease and to stay optimistic. I sometimes say patients, that are in the Pandora Box, the last thing that's there on the bottom of the box is the hope, so there's always hope; always hope for new clinical trials, there's hope for a new medical development, which as Dr. Ekstein said, coming very fast. So there are good things to see, also, to look. You should know how to look at the full half glass, not just on the empty.

**Benyamin Cohen:**

When we return, the doctors discuss how Hadassah Hospital is using stem cell research to treat Parkinson's. Plus, hear about their amazing discovery, where they were able to diagnose Parkinson's disease simply from the way people typed on their computer.

**Dr. David Arkadir:**

So the way they are typing, the way they are using the mouse, on the screen we can detect in a very short time if the user is a Parkinson's patient or not a Parkinson's patient.

**Benyamin Cohen:**

All that, and much more, after a quick break.

**Dina Kraft:**

I'm Dina Kraft, the host of a podcast called "The Branch," which tells the stories of relationships between everyday Israelis and Palestinians, Jews, and Arabs. Amid conflict, entangled histories, stories of human connections and friendships can get lost. The mission of this podcast is to find them and bring them to you. In this season, I talk to artists, midwives, soccer teammates and environmentalists. All of them and many others, too, who work together in spite of the barriers between them. "The Branch" brings you stories of real people forging strong connections and having important conversations, even when it's complicated. Brought to you by Hadassah. Find us anywhere you listen to your podcasts or [Hadassah.org/thebranch](http://Hadassah.org/thebranch).

**Benyamin Cohen:**

And now, back to our conversation with Dr. Dana Ekstein and Dr. David Arkadir.

**Benyamin Cohen:**

So I want to pivot now and talk about the treatment and research that you're both working on at Hadassah Hospital. We talked earlier in the episode about there's a genetic marker that you could see if someone might be susceptible to Parkinson's. Is there any way possible to prevent Parkinson's if you know that someone has a marker? When we talk about the BRCA gene, there are preventative surgeries you can do to lower your risk of breast cancer.

**Dr. David Arkadir:**

There is a lot of research focusing on how to prevent Parkinson's, so now we can trace a gene, tell somebody that he's at risk for the disease, but then at this point, what can we do with this? So there's a lot of research, both clinical research and pre-clinical research aiming to this target. We know that our knowledge is still limited, but we are advancing very fast. We know, for example, that a medication named Ambroxol, which is an anti-coughing medication might prevent or delay Parkinson's disease in a certain gene mutation, and we know it based on pre-clinical observation, based on animal models. We still are not sure if it works in humans, but this is one direction of research.

**Dr. David Arkadir:**

We know that another Ashkenazi Jewish gene named LRRK2 is now focused by some certain medication that reduce the abnormal gene activity. So we are advancing very fast toward prevention.

**Dr. David Arkadir:**

And also here at Hadassah, we are looking for genes in different populations, not just Ashkenazi population, also the Ashkenazi population, but not just. And we trace a new gene that might cause the disease or lead to the disease. We try to understand the function and we try to understand how we can intervene with this abnormal function in order to prevent the disease.

**Dr. David Arkadir:**

This is a time in medicine, generally, that we know a lot about the genetic background of neurodegenerative disease, and now we are on the aim of, after tracing the risk, to fight the risk and to prevent the disease. So I don't have any clear based evidence things we use now, but I'm sure we'll have in the near future, in the next few years; we'll have a way of prevention.

**Dr. Dana Ekstein:**

I would just like to add, or maybe to emphasize, how actually we are now in an era where we start to be able to give individualized treatment to those patients, based on their genetic background. It's not the only finding, like finding genes that may be related to a disease, but you can find the specific gene which went wrong in the specific patient, and then tailor them a specific treatment, which is really exciting. We are at the beginning of being able to do these kinds of things, but this really seems like the future of these kinds of diseases.

**Benyamin Cohen:**

Are there surgeries or procedures you can do, like deep brain stimulation that can improve the prognosis of a Parkinson's patient, or at least slow down its progression?

**Dr. David Arkadir:**

Yes, definitely. Hadassah is a worldwide, world-known center for deep brain stimulation; part of the scientific background for DBS, for deep brain stimulation, is from here.

**Benyamin Cohen:**

Can you explain what deep brain stimulation is? It's also called DBS for short.

**Dr. David Arkadir:**

Yeah, sure. In deep brain stimulation, you go into a neurosurgical operation, in which the neurosurgeon put two electrodes in the brain, one electrode on the right, one on the left. And the tape of those electrodes is sitting in one of the basal ganglia, on one of the areas that are affected by Parkinson's disease, and can relieve symptoms. So the neurosurgeon is putting on the electrodes, and then the neurologist is calibrating a pacemaker in order to find the best setting of electrical parameter that will stimulate this area and will improve the patient's symptoms.

**Dr. David Arkadir:**

Hadassah is the largest medical center in Israel that is doing those procedures. I think 60 or 70% of the procedures in Israel are done in Hadassah, and all the rest are done in four or five other centers. And we see a very good result that lasts for many years and change, not necessarily the biology of the disease, but definitely the patient outcome, the patient's symptoms, which is the most important thing.

**Benyamin Cohen:**

Dr. Arkadir, I read with great interest about a study you worked on ... this is just fascinating ... where you discovered you were often able to diagnose Parkinson's disease simply from the way people were looking for information about the disease, and how they typed on their computer and moved their mouse? Can you explain that?

**Dr. David Arkadir:**

Yeah. This is a collaboration we had with Microsoft and with Professor Ora Paltiel from the Public Health Department. We showed that people who were looking on search engines like Google ... we didn't use Google, we used Microsoft's search engine. So they are looking for whatever they are looking for ... they can look for a name of a newspaper, or for a destination to travel to. The way they are typing, the way they are using the mouse, on the screen we can detect within a very short time if the user is a Parkinson's patient or not a Parkinson's patient. We used some artificial intelligence algorithms, but we did this study just to show the potentially beneficial – but also potentially harmful – ability of software companies to detect neurodegenerative disease of users, and we called for some ethical framework that should be established in order to prevent the misuse of this information.

**Benyamin Cohen:**

This would be like in the early stages, meaning the patient may not even know he has a neurodegenerative disease, but the software may be able to figure that out?

**Dr. David Arkadir:**

Yeah, in some cases the patient might not even know he has the disease, but we can detect he has the disease. Now I'll just say that like any other diagnostic procedure, the diagnosis accuracy is limited.

**Benyamin Cohen:**

Sure.

**Dr. David Arkadir:**

We cannot say 100% to either that you have Parkinson's or you don't, but we can say in a very high probability. But yeah, this is one of the abilities that today technology allowed us to remotely diagnose people with Parkinson's disease, but we are not doing it on a routine basis and, of course, patients have

their own privacy or generally should have their own privacy. But this was a warning sign just that an ethical framework should be built by both technology companies and people from the medical professions. And ethical professions.

**Benyamin Cohen:**

Wow. That's fascinating. Just moving your mouse, to be able to figure that stuff out, it's pretty fascinating. But I hear what you're saying about the ethical issues relating to that.

**Benyamin Cohen:**

I want to know, at Hadassah in the neurology department there, what kind of work or research are you doing around stem cells?

**Dr. Dana Ekstein:**

There are quite a few research studies using stem cells. Some of them are for patients with Multiple Sclerosis, and also for patients with ALS, with motor neuron disease. And also there is research, like basic research, done with rodents, in mice, and rats. So we had quite a few successes, especially with the stem cells for Multiple Sclerosis. The paper on that was published recently, and hopefully a new advanced study on that will follow. Also, with the ALS patients, we already have some success with stem cells for motor neuron disease, where the deterioration of the patients was slowed by the treatment, and this has not been published yet, but hopefully we'll continue with those studies as well.

**Benyamin Cohen:**

Obviously, you're encountering these terrifying, horrifying diseases every day. What brings you both hope?

**Dr. David Arkadir:**

I think the first thing is that those diseases; people are dealing with difficulties, but the disease is not horrible, in the sense that life continues. And continues for many years with certain limitations that are becoming more and more obvious as time progresses, but this time progression can be quite slow, and there's still life to enjoy, and there's still things people can do, and people can still enjoy many things: enjoy families, enjoy traveling, enjoy friends, enjoy intellectual things, enjoy music. So it's always to look at the bright side of life, this is the first thing. In the end, life will end for all of us, and we cannot just think about the end, about the disabilities, but although the thing we can do and the thing we want to do. So I think this is what we try to tell patients, and we try to also to employ this thing to our own lives.

**Benyamin Cohen:**

Sure.

**Dr. Dana Ekstein:**

My hope is actually related to what I said in the beginning, that I have been at Hadassah forever. So I've been here for 30 years, and my hope comes from the fact that I can see such a fast development of research, and science and treatments in neurology. Thirty years ago, we didn't think about treating stroke patients like we treat them today, and the same thing with epilepsy patients. So those were our patients, where we really know much more how to treat them better today than how we treated them just 10 or 20 years ago. And I think the last piece is the neurodegenerative diseases, but I really think

that I can see how new treatment, and new scientific findings on those diseases lead to new treatments for them, and I think the next one or two decades will be really exciting in our profession.

**Benyamin Cohen:**

Do you think that one day we'll have a cure for Parkinson's?

**Dr. David Arkadir:**

Yes, I believe one day we'll have one. They will have a way to stop the disease, to prevent the disease. And one day we'll have a way to keep the disease stable, so if you diagnose someone with a mild disease, to keep it mild for many, many, many years. And hopefully, one day also we'll have a way to reverse it, to make neurons that are lost, somewhat to the neurons that are stayed, able to compensate for those neurons that are lost. So yeah, I'm optimistic. I think we are getting there. Whether it will be in one, two, three years, or 20 years, nobody can say. But it's a very, very fast advancing field. So yes, I'm optimistic.

**Benyamin Cohen:**

How is the neurology department, as a whole, at Hadassah helping contribute to the treatment of this disease?

**Dr. David Arkadir:**

You ask why just Hadassah, because amazing things are happening. The research about Parkinson's disease is a multi-disciplinary team, a great collaboration with neurologists, neurosurgeons, geneticists. And we see the result, and we see how it contributes to patient, and we see how it gives hope for the future of a patient with the disease. So I think this is the reason that causes me to be so enthusiastic about treating patients with Parkinson's disease, specifically at Hadassah.

**Dr. Dana Ekstein:**

I think you are right, and also in general, why we think the treatment of neurological diseases has such an optimistic future at Hadassah is that we really have here the combination of diversity of patients, and of many subspecialties of physicians, together with scientists from the Hebrew University, from the School of Medicine of the Hebrew University and Hadassah, and we can have a really good research platform to develop new ways of diagnosing and treating neurological diseases here.

**Benyamin Cohen:**

Dr. Ekstein, Dr. Arkadir, thank you so much for taking the time to chat with us today. I know you have very busy schedules, and I'm always very appreciative of when doctors come on to talk to us about the research, and the important work they're doing at Hadassah.

**Dr. Dana Ekstein:**

Thank you. Good to be with you.

**Dr. David Arkadir:**

Thank you.

**Benyamin Cohen:**

“Hadassah on Call: New Frontiers in Medicine” is a production of Hadassah, The Women's Zionist Organization of America. Hadassah enhances the health of people around the world through medical education, care and research innovations at the Hadassah Medical Organization. For more information on the latest advances in medicine, please head on over to [hadassah.org/news](https://hadassah.org/news). Extra notes and a transcript of today's episode can be found at [hadassah.org/hadassahoncall](https://hadassah.org/hadassahoncall). When you're there, you can also sign up to receive an email and be the first to know when new episodes of the show are released.

Subscribe to our show on Apple Podcasts, Google Play or your favorite podcast app. If you haven't already, please leave us a review on the Apple Podcast store. It only takes a minute and when you do, it helps others discover “Hadassah on Call.” The show is edited by Skyler Inman and produced by the team at the Hadassah offices in both New York and Israel. I'm your host Benyamin Cohen. And thanks again for joining us today. We'll see you next month.