

Behind the Breakthrough Podcast - University Health Network

Season 5 - Dr. Tatyana Mollayeva

Transcript

BTB

Hello and welcome to another episode of Behind the Breakthrough, the podcast all about groundbreaking medical research and the people behind it at Toronto's University Health Network, Canada's largest research and teaching hospital. I'm your host, Christian Côté and joining us on the podcast today Dr. Tatyana Mollayeva, award winning scientist at UHN's Toronto Rehabilitation Institute Research Center called KITE, and that stands for Knowledge, Innovation, Talent, Everywhere. One of the hallmarks of Dr. Mollayeva's pioneering research into brain health is the effect of lack of sleep on people with neurological disease and injuries. And she's leveraging that research to promote awareness and knowledge about the connection between sleep and brain health. Dr. Tatyana, Mollayeva, welcome to Behind the Breakthrough.

DR. TATYANA MOLLAYEVA

Thank you.

BTB

What are the consequences of lack of sleep and sleep disruption?

DR. TATYANA MOLLAYEVA

Sleep is crucial for preparing our body and brain to perform optimally in both cognitive, behavioral and physical means for tomorrow. In turn, lack of sleep, sleep deprivation or impaired sleep carry significant consequences on our functioning and behavior and overall health during tomorrow and following days.

BTB

And do we know the scope and scale say of sleep disruption in Canada these days?

DR. TATYANA MOLLAYEVA

This topic is well investigated in the industrialized world, including Canada. Over 50% of people of adult ages report chronic sleep disturbances with over a third of them experiencing these disturbances on a regular night basis. This is extremely alarming for me. They can't even count known influences of impaired sleep on human health, functioning and behavior.

BTB

Now your research Dr. Mollayeva examines the effects of sleep disruption and disorder in people with mild traumatic brain injuries or TBI's. Before we get into the findings of your research, can you talk to us a little bit about how did you come to choose this patient cohort for your research?

DR. TATYANA MOLLAYEVA

This was a really important question. Traumatic brain injury is a critical injury. And does not just belong to critical injury, In more severe cases, even mild traumatic brain injury carry out significant adverse consequences for the personnel and family and population levels. These disorders are extremely prevalent in our society. So studying mild traumatic brain injury came about from the controversy that have been linked limited impact to the brain or head and disruption as a result of this limited impact.

So for me, it was extremely important to understand what causes this significant influences, whereas limited force that was applied to head of human body. So understanding that definitely lead to have an injury or mild traumatic brain injury, and to follow people back and forth in time to understand their health, both brain and physical and emotional health to which they came towards the injury event. And how this injury event led to further development of consequences in both function and health. So this came naturally, I wanted to go with the less severe injury, but not to limit the impact of more severe injury on human brain and body.

BTB

Okay, so let's delve into your research discoveries, starting with the fact that people with traumatic brain injury experience higher rates of sleep disorder. Talk to us about what you found there?

DR. TATYANA MOLLAYEVA

Hypothesis were that people came to the injury, not healthy, with having their sleep disrupted. And in those who experience this challenges with sleep and other health-related problems, recovery would take a significant impact. So there will be much longer periods that people will have to recuperate and recover from even mild traumatic brain injury. So to look at that we would require longitudinal investigation, or we can have a cross sectional sample and ask people about their sleep before and after the injury. And this was what I started to go with. Because longitudinal study are extremely costly. They also require a significant effort on the people's side to continue and not drop off, the research.

So for me, asking people simple question, Did you experience any problem with sleep preceding your injury? And how was your sleep after the injury asked me to have this longitudinal component, and also having medical charts of people allow me to connect their health, both physical and mental, to this self reported sleep function. Results were very important. They did show that many people experience impaired sleep receiving their injury. And those were directly linked to disorders of both mental and physical health, they were diagnosed with precision injury, so they truly came to injury with impacted sleep.

DR. TATYANA MOLLAYEVA

Following injury, their sleep didn't become better. Because brain injury, even mild in severity has an option and opportunity to disrupt impact networks of neurons and centers of the brain that are involved in both sleep and wakefulness. So definitely having this double burden, both traumatic brain injury, impact on structure and function of already compromised human brain and body led to this significant influences in terms of adversities that people are experiencing, for instance mild traumatic brain injury.

Follow up studies of mine and colleagues at the KITE, University Health Network in collaboration with a Dalla Lana School of Public Health, an ICS, which holds administrative healthcare data at the population level, confirm that disorders preceding injury have implication on injury severity, and also have implication on circumstances of injury with traumatic brain injury outcome. This should be considered when we assign injury severity to individuals, and we should consider brain health. At the moment of this not very significant physical impact to human head or body.

BTB

Does your research then also have anything to say about the impact of sleep disruption for people with TBIs, in terms of impacting their rehabilitation and the recovery from their injury?

DR. TATYANA MOLLAYEVA

Yes definitely and this research is not just mine, but extensive research that is coming from all over the world, and which show that presence of a sleep pathology at the time of injury are linked to adverse physical, cognitive, emotional and behavioral outcomes, as well as increased mortality. And this research didn't come just from human study, we have years of investigation of research that came from animal models, which in fact are able to control the extent of power that is implied on a sleep deprived brain, in mice and other animal models.

This important implication have been translated to human studies, which shows that even minor disturbances in sleep structure of function, or architecture as a result of sleep deprivation or sleep disorder or imply arousal as a result of environmental influences have profound effect on both cognitive, emotional, behavioral risk of accidents as well as the recovery period that I needed for after brain injury. These results have significant implications for how we manage and look at sleep pathology in light of daytime pathology, that we are prone to take care of in people with traumatic brain injuries.

BTB

I'm curious if your research was able to turn up whether there's any connection between traumatic brain injury and a higher incidence of sleep disruption or disorder?

DR. TATYANA MOLLAYEVA

Any force to the head specifically, the head, which induce shift of the brain within the skull, in numerous direction has an ability to disrupt interconnected networks of neurons that are in supportive cells,

including blood cells, that are supporting neurons and glial cells in recuperation, and neurogenesis and neuroplasticity. If a network is impacted, there will be more energy required for the injured brain to recuperate. If energy is not coming through impacted vessels, or connections between vessels to the glial cell, and then to the neurons, neurons will suffer. And these are thousands and millions of interconnected neurons in different areas of the brain. If the state of these neurons and connective cells is intact at the moment of a single event, definitely we will not observe influences of pathology.

However, if a brain is already compromised, in terms of its ability to manage this additional minor load would need to be taken into account in order to develop interventions that have the potential to restore and recuperate and promote the needed neurogenesis and neuroplasticity after injury. It is also extremely important to recognize that after traumatic brain injury, a brain searches a way in a simple term, to learn new things. And the ability to learn new think would depend on the amount of energy that is available within this brain and body to be able to recuperate.

Again, multiple comorbidities and multiple morbidities put a person to greater risk in terms of recovery. And this needs to be taken into account when we look at who needs support and screen for sleep disorders at the time of injury, which means secondary injury prevention without limiting ideas for primary injury prevention at the level of a person and society to prevent injury from happening in the first place.

BTB

And I understand also in your research, you were looking at identifying the risk factors for people with traumatic brain injuries who have sleep disruption, things such as adverse cognitive reactions and reaction time. Talk to us about that.

DR. TATYANA MOLLAYEVA

I came to PhD studies on topics of sleep in people with traumatic brain injury when working as a disability case manager for insurance sector. And it was obvious for me that sleep disorders associate with disability. So I didn't see that sleep was investigated in these people on a routine basis. So this was a big alarm for me because I already directly observed the impact of impacted sleep structure on functioning of people by working in sleep screening, so I needed to do something about that. So I developed a proposal and receive Frederick Banting and Charlie Best award to investigate this topic, during my PhD.

I understood that in order to influence people who make decision, I need to provide strong evidence. So this evidence is taken into account to start screening for sleep disorders in people who are at risk of brain injury or head trauma, because of their exposure to certain occupational risks. For example, in people who work at heights, who work with explosives, those in sports, those who work night shift, because I knew that sleep function in this group of people is already compromised, even though they might be young and otherwise healthy. So I wanted to prevent injuries from happening. Cognitive and physical health receive a great attention. So we all as a human want to be productive from both cognitive side as well as physical, we want to maintain that throughout our life.

DR. TATYANA MOLLAYEVA

So in the studies to bring the attention of people to the impact of sleep deprivation, and or disorders, and untreated sleep disorder that had on their health, I need to bring attention to something that is relevant for them. Because having a diagnosis, which is not linked to function, would definitely not bring attention of people who reflect on their sleep on a regular basis. So those have I came into cognition. And it was also because dementia rates in Canada are raising exponentially, and globally, and population is aging. So with aging, there is high prevalence of sleep disorders of different categories, including, but not limited to insomnia disorder, sleep related breathing disorder, parasomnia, which in fact, are reflecting the state of the body, and daytime pathologies that we observe in cleaning.

So bringing attention to cognition had an important point for me, which I wanted to explore further, again, to bring attention to sleep functioning as it relates to functioning of the brain and human body. Because it is my honest belief that there is no health of the body, or health of the brain, without sleep health.

BTB

So Tatyana what's been the reaction of the healthcare community to your findings and your research?

DR. TATYANA MOLLAYEVA

I think the reaction was just amazing. It may not be immediately taken into account by but the number of citation of my scientific world, I can see it's exponentially growing. I can also see is that clinical guidelines for people with mild traumatic brain injury concussion, Canadian living clinical guidelines have been updated with a section on sleep wake pathology, and have the screen and realize they need to deal with this. It's a very early stages after injury. So I'm very happy that I was able to contribute to the growing evidence of the need to look into this topic with greater precision.

BTB

I was gonna ask you exactly that - so it sounds like the impact is right into the clinic. Because knowing patients with mild TBI have a higher incidence of sleep disorder, which has been shown through your research, that it can be an impediment to recovery, and it can trigger increased risk factors. Do you think this will continue to inform the potential for generating preventive remedies or clinical treatment for rehabbing patients with TBIs?

DR. TATYANA MOLLAYEVA

I think that major funding agencies around the globe started to think prevention, and prevention is probably less expensive than treatment and rehabilitation. And it also can reduce human suffering and family suffering, and also increase population health in light of aging population. So I honestly believe that sleep will be taken into account when dealing with major pathologies that impact human body and

the brain. And yes, it is upcoming. But my intent is also bring attention of individual people to think about their sleep health, and sleep in general on an ongoing basis, particularly as it concern sleep duration, sleep timing, and continue to regularity of sleep schedule throughout the day. Because sleep is a complex function, which has multiple regulatory processes, including those that are driven by internal clocks. We spoke as circadian rhythms as well as homeostatic drive for sleep, which states that the longer we stay awake, the more intense we will sleep.

DR. TATYANA MOLLAYEVA

So human behavior in term of the managing adverse load on each of the system and allowing this system to work in synchrony would be extremely important. So educating people and the public, there's a lot they can do, in order to enhance or reduce potential for declination of their personal health is extremely important. And I hope that they will be able to contribute to this course, in the near future.

BTB

Well, let's expand on that. Because you essentially do some advocacy work here, you do a lot of outreach and education as well, about the impact of sleep disorder on brain health and our bodies health. Talk to us about that?

DR. TATYANA MOLLAYEVA

My outreach is largely through sharing research result at the national and international conferences. And not only sharing the result, but producing solid research evidence that all people appreciate. Service and hope that they will take some messages into account and reflect on them and start to think about it. I also think that education is early we start with education, the best it would be at the level of our population. The point is that it is an early age, when we form habits around our sleep and wakefulness.

So the early we will start to form good habits, and eliminate those habits that are not serving us well. In terms of both productivity, behaviour, as well as health and functioning. The earlier it is started, the more successful we are. So educating, public through outreach, and maybe I am not perfect in that because I cannot talk simple words. My scientific work is much more impactful, I believe, but educate an undergraduate student has proven to bring their attention to sleep. Many students of mine reflected that they came to my course that has been developed on sleep structure and function without realizing the significant impact sleep health has on their productivity at school. Behaviour during the day, relationship with people around there, their emotional health, cognitive performance, as well as health, so many of them were able to reflect. And it was great for me to see that they said that they stopped having all nighters, that they regulated their sleep environment that they stopped looking at screen prior to their bedtime.

BTB

You're talking about scrolling through their Instagram or TikTok account.

DR. TATYANA MOLLAYEVA

Because that's a light, light suppresses amount of melatonin that has been released. And with that your ability to fall asleep is diminished. This is directly linked to your ability to fall asleep and maintain and reach this most restorative stages of sleep that have significant impact on our tomorrow.

BTB

And do I have this right Tatyana, that you've been lobbying the World Health Organization to raise awareness about sleep and brain health?

DR. TATYANA MOLLAYEVA

That's a great question. In fact, it's not through lobbying. I'm part of the Global Brain Health Institute. I'm an Atlantic fellow for equity in brain health. And World Health Organization, had the seminar with us and introduced the concept of brain health. It included everything, but sleep. So my question to them was where does sleep feed into this construct of brain health? The Response was - that's a very complex topic. We are still working on that, but thank you for raising our awareness on the need. I offered my help to help develop proper brain function construct, which integrate sleep health as part of the brain health agenda. So that's my lobbying.

BTB

It's a start.

DR. TATYANA MOLLAYEVA

It's a start.

BTB

You've gone on to also widen your research I understand to examine things like the gender and equity divide, as it relates to sleep disorder and sleep disruption. What have you discovered there?

DR. TATYANA MOLLAYEVA

Both sex as a biological variable, and the gender as a socially constructed roles, relationships and behaviors are extremely important factors to be taken into account when studying group of people who are at risk for sleep pathology. And I'm talking sleep pathology, because it can be sleep deprivation, or disturbed sleep as a result of developed sleep disorders, which are definitely reflective of a state of male, female intersex people, as well as people of different genders. The reason for that is that there are sex differences that have been discovered from the moment of egg and sperm fuse together, and

this development are going under the influences of sex specific hormones, which are definitely linked to brain structure. And as a result, brain function.

DR. TATYANA MOLLAYEVA

So biological differences have been observed at different level of the nervous system, including those of a structure of individual neurons, as well as morphology of a human body. Taking this into account would definitely help us determine which disorders or which group of people are more likely to develop disorder as they go through their life. But our lives and we as a human are not just biological creatures, we are also prone to different roles and relationships in our societies. And by performing these roles and relationships, we are exposed to different risks. So taking this into account, would allow us to understand an even distribution of different sleep pathologies and disorder between men, women, and people who don't identify themselves with this binary construct. So both biology and other gender roles matter. When we take into account what to do, and how best to prevent, treat and rehabilitate impaired sleep and concurrent daytime functioning.

BTB

It's interesting to me it seems the study of sleep and connection to brain health, body health, is having sort of a scientific moment these days, what's your take on, why is that happening?

DR. TATYANA MOLLAYEVA

I think that people realize that sleep and wakefulness are not independent processes. Because we spend 1/3 of our lives, while asleep and how this sleep immediately determines how we feel and perform the following day. So this implies that dealing with daytime pathology and disorders of cardiovascular system or intestinal system, or immune system, without looking at how this GRM reflects on sleep, would be not the proper way to go. So we definitely want to have an understanding of a continuity of processes that are happening both during sleep and wakefulness on a continuous basis.

DR. TATYANA MOLLAYEVA

Because only with that we will be able to truly go and deal with the needs that we see people have in terms of their impacted sleep and resulted wakefulness. So I think it's just a realization and breaks in science and research that show that whats happening if sleep is reflected in that what is happening during wakefulness, and appreciation of that would definitely be linked to taking both into account simultaneously.

BTB

So what's next for you on the research front? What should we be looking for?

DR. TATYANA MOLLAYEVA

I'm extremely interested in bringing non hypothesis driven approaches into my research, and then talking about Data Mining and Machine Learning. The point is, that individual disorders do not go independently, they interact among themselves and the magnitude of behavioral and environmental influences in non linear and non predictable manner. So, having machine learning complement human research and knowledge and expertise would be extremely valuable and also extremely cost effective way to go with, particularly in Canada, because we have system that is free at the point of care.

So, we can follow people back and forth in time and understand development of certain disorders and injuries and link it to the state of sleep starting from an early ages. So, you would have a research expense from womb to tomb. And we will be very sensitive in detecting group of people on whom we need to take care of as soon as possible. And then definitely this is within the reach of sciences and appreciation of discontinuity of processes of both sleep and wakefulness, in science, medicine, healthcare, rehabilitation, and simple life of people.

BTB

You're listening to Behind the Breakthrough, the podcast all about groundbreaking medical research and the people behind it at Toronto's University Health Network, Canada's largest research and teaching hospital. I'm your host Christian Coté. And today we're speaking with Dr. Tatyana Mollayeva, award winning scientist at UHN's Toronto Rehabilitation Institute Research called KITE. Dr. Mollayeva is pioneering research into brain health and the effect of lack of sleep on people with neurological disease and injury. And she's leveraging that research to promote prevention and education. Now, Tatyana, you were born and raised in Novyi Rozdil, Ukraine, did I get that right?

DR. TATYANA MOLLAYEVA

That's correct.

BTB

About an hour south of Lviv on the eastern border of Poland. Both your parents were engineers. And I understand you were just 14 years old, when you had this aha moment that medicine would be your career path. Take us back what happened at age 14?

DR. TATYANA MOLLAYEVA

It was not truly 'aha' moment. But it was something that by looking back I reflect as being an important point in my life, that I started to realize the need to take into account not just own, a family, or individual house, but the health of the population. And it all came from a region a fictional book called Epidemic, which discusses the influence of a single minor virus on the health of a community and population. Those was very impactful for me at the time, because I saw it, okay, so we can basically create an environment where we would close a person impacted of this viruses. But then I realized that it wouldn't

be possible because we are still human beings with interaction. So definitely people will come in and interact, and potentially be affected by the virus and going out into communities that will spread infectious diseases.

DR. TATYANA MOLLAYEVA

So I realized that this is important topic to be investigated. And it all came from a single book.

BTB

Called Epidemic.

DR. TATYANA MOLLAYEVA

Called Epidemic.

BTB

So that was the inspiration, this fictional book, but do you have a sense when you reflect today of what it is that you connect with? When it comes to being in the practice of medicine? What is it internally that inspires you about being in medicine?

DR. TATYANA MOLLAYEVA

I think it's gained from personal experiences. My brother had numerous disorders and injuries and disabilities he had to deal with. So I saw his suffering throughout life. And I really wanted to help and I think this desire to help people who are suffering was the main determinant that myself and my sister went to medicine. So it taught me that individual suffering is reflected on suffering of people around any given person and this surrounding definitely helped to mitigate level of suffering one endures throughout their life. So since this was a desire to help not just my brother, but to help many people who are suffering as a result of numerous diseases, or impairments in their life.

BTB

What I'm amazed by is this drive that you developed, has taken you on such an amazing journey, you leave home, to go off and study at age 16, to Moscow, where you excel in the sciences, you go on to med school, and you go on to specialize in clinical epidemiology, and public health. Then in the early 1990s, as the Soviet Union is collapsing, you leave and move to Turkman, where your husband is from. From there, you go to Wyoming, back to Turkman. And then in 2003, you emigrate to Toronto, Canada, where you and your husband now with three young children, have no jobs and must start over. First of all, why Canada?

DR. TATYANA MOLLAYEVA

I will have to thank my husband, for making this decision for us. He thought that Canada would be amazing for our family, for our children, to be grown happy, and free in their choices and decision makings. And I fully trusted my husband, and followed him in this adventure. This is how we came into Canada, because Canada was the only country in the Western world who accepted independent immigration. And we came here as independent immigrants, myself included.

BTB

Most of us do not know what it's like to go through that journey. So I'm hoping you can shed a little light on this for us because to pick up and leave everything and start over in a new country, learn a new language, find a new career. When you look back now, where did you muster the courage to take on such a challenge?

DR. TATYANA MOLLAYEVA

I think that many people encounter much more significant challenges in life, as compared to us who had education. In fact, my husband was fluent in English, my conversational English suffered. But I was advanced in the reading, and comprehension, scientific literature, because this was one of requirements in our medical school, to be able to read and interpret scientific literature.

So language was not an issue for my husband, it might be conversational language, a bit of issue to me. But I never been afraid to talk to people. And I say the most important is to be integrated, to be part of where you are, and be useful. And probably this is the biggest lesson I learned in life, be useful. Being useful, would require you to have courage to do new things, to go over challenges.

And be a really a member of society or a group, you're.

BTB

I'm curious what role has mentorship played in shaping your career path?

DR. TATYANA MOLLAYEVA

When I think about mentor, and I do not know where I read about this somewhere a long time ago, it's a person who talks to you in sleep. And I would say that throughout my life, I was extremely lucky to meet many people at different level of society, whom I can say that they speak to me in my sleep. And those are not just professors who taught me medicine, who revealed to me the power of prevention, who taught me the art and science of sleep, and the devastating world of brain injury. Those are regular people whom I encounter in my life. Those were my neighbours, my friends, my patients, claimants, I took care of their disability and developing plans for them to return to work. My research participants and their families. They truly taught me so much that I am extremely thankful for sharing with me their life stories and their ability to reflect and appreciate and honour those experiences that I was able to

use in developing sensible research question that I hope would be going back to them and helps them in some way. Some mentorship and people around me who just share Hello, or coffee with me, I highly appreciate it. And they're in science, all very dear to my heart. And everything that I do in my life.

BTB

The process of research it involves so many challenges, roadblocks, failure, I'm curious how you navigate failure, because it's not something we're taught in school?

DR. TATYANA MOLLAYEVA

That's very interesting question, because I never thought about failures in life, I never was able to reflect on those moments when I was not able to achieve something desirable. It always sort of had its ups and downs, which had certain purpose for me to reflect on, and move ahead. So I think that in English world failure, potentially has different meaning, as compared to those words that we use in our language.

Because falling down, would require you to stand up, and standing up would make you stronger, and moving ahead would bring you closer to the goal. You may need to adjust your goals as you go. Because definitely, the goal is always to reflect on and it's continuously changing in life. So I think that failure is part of success, or road to success, as long as you continue to move forward, or backward, or not standing still. So movement is important, regardless of direction. So that's my idea of failure, and success, and the relationship between them.

BTB

Well put. You've talked about your conversations over the years with patients and their families, you obviously see their need for better treatments for improved treatments. I'm wondering how do you reconcile that need with the fact that science takes time?

DR. TATYANA MOLLAYEVA

I don't think I reconcile on that. I think that in my current role, I have to do good research, and good science, so that someone who is in a position of change would be able to take this evidence without being afraid that it's flawed, and use it for the good of people. And I think this came from my desire to always do my best, no matter what I do. At this point of time, I am a scientist. And my goal is to do good research. In other roles in my life, I am a mom, I'm a wife, and I do my best to basically be good mom, good wife.

In the past, I was a doctor, I did my best to do a job that was a requirement at the time. When I am a student, I also did my best. So I said it's just more trying to put your best effort on any single task I do. And I know that people appreciate the quality and effort and they can see it because I can see it too.

BTB

Nice. I always love exploring the qualities of being a successful scientist. And there's a Nobel Prize winner named Elizabeth Blackburn who said, when she was asked about the virtues of a successful scientists, she said it takes resilience, persistence, as well as being opportunistic and creative. Does that resonate with you at all?

DR. TATYANA MOLLAYEVA

That's an extremely well position. And I'm happy to hear that because I never heard this before. I simply Yes, that's very well resonates with me. But persist and courage is definitely qualities that force you to move ahead, regardless of challenges that you experience. You have to be creative in order to convince other people to help you and go with you. And in the environment of research, where it has to have a funder, you also have to be opportunistic, to some extent, to use numerous opportunities that are available from you from variety of sources, to be able to bring in income that would allow you to form team and work collaboratively on important topics that you envision. But yes, scientists cannot work in isolation. The widest collaboration possible is extremely important, because it challenges you. Raises new questions. And once you have questions, you're trying to find answers. And this is what research is. And what research exploring loss of nature and medicine is.

BTB

There's a leadership author named Simon Sinek, who says, People don't care what you do, they care why you do it. Why do you do what you do?

DR. TATYANA MOLLAYEVA

I always ask myself this question specifically at moments of feeling sad, or having impacted your vision, where to go next. Or helping understanding of the issue, and limited knowledge on certain topics. But I think I do it, because I know that we can do better. And there are changes that need and can be made to enhance quality of care. And it's amazing quality we have now in Canada, but to enhance it to meet people's needs, and sleep needs at this stage, are not extremely appreciated or valued. And I think that this what makes me moving ahead. Because I know that Canada is my country, and my children, and hopefully grandchildren would be part of Canada, and I would want them to have the best of the best.

BTB

Speaking of the journey to Canada, in June of 2022, after receiving a prestigious Canada Research Chair in neurological disorders and brain health, by the Government of Canada, your reaction was quite touching, you made a powerful statement about your journey to get to this point. Do you remember what you said?

DR. TATYANA MOLLAYEVA

I think I spoke about success, that it's not just mine. It's all people who do everyday this effort to contribute to country. Where they live and work. And I think I spoke about immigration.

BTB

Yes you did. These are your words – “As an immigrant, this award is not just for me, it is for all immigrants who have a passion and take the often frightening step of changing their professional identity.” Why was that message to other immigrants so important to you?

DR. TATYANA MOLLAYEVA

I think it's important because I met a number of immigrants, specifically coming from medicine, who told me that in Canada, I will be either a doctor, or I will not do anything else. And I always questioned that. Because I thought as a doctor, if you're a true doctor, it's not the matter what kind of work you do. It's a matter of your honest desire to do the best at the given moment in the position you are placed at the time. So I think that understanding that it's not a certain status in society that determines your force, but it's the knowledge that you can use and share and no matter which level you're at. So I think this has been very much reinforced in my family, that no matter what your position to do, do it. The best you could. So I think that's very important for me and I use it in my life. And I never was able to dream that I would at some point, after 20 years of being an immigrant to Canada, and naturalized citizen since 2005. Be in the position to receive this honour from Canada. I'm extremely thankful. And it's my honor to be able to live and work on this sacred land.

BTB

We'll end there. Dr. Tatyana Mollayeva award winning scientist at UHNs Toronto Rehabilitation Institute Research Center called KITE, thank you for sharing your pioneering work and continued success.

DR. TATYANA MOLLAYEVA

Thank you so much.

BTB

For more on Dr. Mollayeva and her pioneering research, go to our website, www.behindthebreakthrough.ca or uhn.ca. And let us know what you think we'd love to hear from you. That's a wrap for this edition of Behind the Breakthrough, the podcast all about groundbreaking medical research, and the people behind it at the University Health Network in Toronto, Canada's largest research and teaching hospital. I'm your host, Christian Coté. Thanks for listening.

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