Dreams & Neurogenesis: How TA-65 enhances Sleep, Memory, & Cognitive Repair Transcript

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Podcast Introduction

Hey there, welcome to the Recharged Biomedical Podcast. I'm Dr. Edward Park, and if you're curious about regenerative medicine, you've come to the right place.

We're diving into the latest breakthroughs in telomeres activation, stem cell exosomes, and all the cutting edge science that's shaping the future of healing and longevity.

Let's get started.

What Dreaming Is

I scare myself just thinking about you I scare myself when I'm without you I scare myself the moment that you're gone I scare myself when I let my thoughts run And then when I run in I keep thinking of you What can I do Alright everybody happy Halloween This is one of those topics that was seasonal since it was about scary things and Halloween I figured well let's do dreams and I kind of just threw it together but hopefully it won't look that way once you all said and done On the opening picture we have a woodblock by M. C.

Escher entitled Dream or The Dream. No explanation required there. So what is dreaming? This is a pretty good definition although you could take issue with every single one of these concepts but suffice it to say dreaming is a form of thinking that occurs under minimal brain direction external stimuli are blocked and the part of the brain that recognizes itself shuts down.

So on the right we have the great Salvador Dali and he entitled this dream caused by the flight of a bee around a pomegranate a second before awakening.

which is interesting. It's said that Thomas Edison used to sleep in an armchair with a bell in his hand because he wanted to, as he was going off in that nether region between consciousness and unconsciousness, come up with great brilliant ideas in that theta wave sleep.

So there is something interesting the Tibetan monks can voluntarily call up theta waves. There's something intuitive in between the ego conscious cognition and the unconscious see.

So why do we do this topic? Well, I differ from the company in that I give the TA65 before sleep and the recommendation in the package insert is in the morning.

And I find that people don't have that much alteration in the sleep and dreaming when they take it in the morning. So typically we found that 9 out of 10 TA65 users, which is a telomeres activator that we have been prescribing for several years, they report altered dreaming when taken before sleep.

So much so that I use it as a heuristic or like an empirical measure of whether the stuff is being absorbed or working.

TA65, Sleep, and Vivid Dreams

Also in the initial induction period of two weeks, there's some drowsiness which can occur and it can be quite intrusive. Looking back on it, it appears to be more of an entrainment of the circadian rhythm.

So I too experience drowsiness in waves of six hours. So around noon, I'll get sleepy and six o'clock. So this is

something you should just obey, and I believe it's the consciousness of the body trying to fulfill the mission.

And so if you're always on for 16 hours a day, it's a little bit difficult for you. So if you take a little cat nap, a 15-minute power nap, or alternatively meditate, that's great.

Users describe vivid, colorful, more emotional, more memorable dreaming. So I liken it to going from a Roger Corman film to a Steven Spielberg production.

It's very subjective, and people remark that, well, that's very subjective. But when you're in it, when you try it, it really isn't. And it takes a while to understand what the difference is.

You need to not take it and take it, and then finally you can identify what it is about the TA that changes. that they're dreaming. Other people describe it as an extreme realism.

One lady said, it's like you're in it. There could be variable degrees of lucidity, meaning awareness that you're in a dream. And some people describe a sleep-wake confusion, not just around the time that they wake up, but some people mistake things that happen in a dream.

Perhaps they happen in reality. I mean, it's not common, but I noticed that since I've been taking it more regularly, non-real events like dream events actually I know that they're dream events but they exist like real memories in my brain too and one of my patients described it as it's as though you had a traditional vacuum cleaner like a tube, and you got converted to one of those Dyson Cyclone vacuum cleaners.

So all the memories, both real and imagined, although they're categorized correctly, are accessible. It's like the whole hard drive goes into RAM, so to speak.

It's important to also understand that the breadth of the dreaming, the topics, people who haven't made appearance since 40 years, old boyfriends, that increases and the depth increases.

The experiential nature of it is more intense. Dream incubation is a concept we should talk about, meaning whatever you go to sleep thinking of, can has a high chance of appearing in the dream.

So very important when you start new patients to have them, you know, maybe list things they're grateful for, things they're happy about and have that somewhere either figurative or literally by the bedside, because a lot of people find the initial dreams frightening.

And if they're worried about their sleep and they're worried about taking the pill, then those will amplify into monsters from the id. like a forbidden planet and then you're gonna have problems and people will find it very disturbing.

So other people describe very clearly that it's like they're solving a problem, their subconscious gives them an answer. I remember one lady said that it's like she was just kind of a passive observer and she became the star of her dreams and was able to tell people often things.

It's interesting that they can be very scary too and that fear as a lower chakra, if you will, is actually stronger and more imprinting emotion. So fear can be enhanced as well.

That's why it's important to have a good thought incubating. People describe initially that they can have these jarring awakenings after every 90-minute cycle, and they do tend to happen right on the 90 minutes.

And also there's deviation to the norm in sleep, meaning if you sleep too little, you'll sleep more, and if you sleep too much, you'll sleep less. And that is a phenomenon we see in weight as well.

So again, TA65, as it only enhances what your body's trying to do, it just takes you back to a more natural anic property. This is normal sleep architecture.

You go down, you go up, you go down, you go up, you go down, you go up four times a night. That's four times 90 minutes is six hours. So let's say you went to sleep at 11, you'd be waking up at…

Ideally, people that can should take the fifth cycle, meaning six to seven and a half hours. And ideally, if you want to be very blissed out, you should take the sixth cycle from seven and a half to roughly eight and a half hours, because that extra REM really puts you in a calm, centered, spiritual place.

Most typically, people get the physical, mental healing, and so they tend to gravitate towards six hours, which is fine. But again, I always advise people to get that fifth and sixth cycle if they can.

When you hook somebody up to brainwave monitor, you'll see that the awake state is this high frequency alpha wave, which is very similar to being awake.

That's why your eyes are moving. And what's represented here in the gray boxes is that the first two cycles, well, first of all, are physical healing.

And the last two, from 3 a.m. to 5 a.m.

Sleep Cycles and Brainwave Architecture

, as you come out of consciousness, you get REM sleep, and that is more of the procedural memory, the things we would normally consider dreaming, and that is like a little movie running in your head.

The deeper stages of sleep, two, three, and four, now three and four have been combined, but what's characteristic of them is that they have these slower waves, which you can see these delta waves.

So the slowness of it is indicative of the fact that your consciousness is shut down. It's during this time that your body is paralyzed, your mind is non-functional, and the most profound and rapid changes are occurring in terms of healing.

And that's why even from the early onset in 2007, I always thought maybe it was better to take it while the body's trying to heal, just as you don't repair the freeways during rush hour, but rather during the night.

There's a concept called declarative memory, and this is very important to discuss. Declarative memory is 8675309. It's people's faces, it's addresses, it's things that need to be hard-coded into the hard drive.

So it's learning. This fascinating study in 2011, or I'm sorry, 2007, I really want to explore because it's pretty unique and it's very telling what they were able to come up with.

So what they did was they gave people a task to memorize cards, like, you know, little flashcards and positions, and they made them smell a rose, and then they tested their ability to recall that the next day.

Basically, they have these flashcards and they did four experiments. It's a very elegantly designed experiment. So, well, let's talk at the top first.

You see that they reintroduced in some instances the rose smell while somebody was sleeping. And we see those waves, the first two cycles again being slow wave sleep and the latter two very little slow wave and mostly REM.

So they tried four different versions of this test. In the first test, they reintroduced the rose smell during the first two cycles, the slow wave sleep cycles, the regenerative cycles when the hard drive was recoding.

In the second, they didn't give an odor when they were learning the test and they just introduced the rose smell during sleep. So again, there was no entrainment.

of the rose smell. In the third, they gave the rose smell, but they only reintroduced the rose smell during the REM

cycles, the procedural memory, the high alpha activity cycles.

In the last, they gave the rose smell, and then they gave the rose smell again, but during the awake, not during the slow wave or the REM sleep. They looked at people's ability to recall the order of the flashcards.

Only in the first one, where they reintroduced the odor while the person was sleeping in slow-wave sleep, did they have this amazing recall. They were able to recall upwards of 98%, which is fascinating.

And so the second experiment, where they didn't initially teach the person with the rose, there was no difference, really. The third, when they did it in REM sleep, again, no difference.

And then lastly, when they reintroduced the rose smell, but the person wasn't asleep, no difference. So, it's true that reptilian-wise, smell is one of the most primitive things and it also can be an adjunct to memory and learning as it's one of the most emotional entrainer.

This is entitled, Remembering to Buddha up Dolphins versus Flying Fish. Let's look at the architecture of these four waves that we've talked about. So you go down to slow wave sleep, you come up, and I've always told people the reason for the brief awakenings is that you're like a dolphin.

You come out of unconsciousness and you should just fall right back down. Indeed, people will fall back to sleep within like several seconds if they're anticipating it because the emotional valence of it is not, oh, scary, bad side effect, this is hurting me.

It's like, oh, Dr. Park said this was going to happen. invariably as they take it it happens less frequently and then or less noticeably and then it can often not happen at all as the meta consciousness chooses to ignore it so a flying fish will come out of the water it'll flap its wings and it'll keep on going which is bad that's the equivalent of you getting out of bed you know, checking your email, going to the bathroom with the lights on, getting a drink, you know, these kind of things, engaging what you're going to do the next day.

You don't want to get conscious again. You want to go right back down so you can continue on with your night's journey into day.

Memory, Odor, and Dream Recall

So what's the other kind of memory? There's declarative memory, which is remembering facts and it requires the neurogenesis or the 10,000 new brain cells made every night.

There's the procedural memory, which is how you make sense of the world. So this would be more in the REM stage. This is like the software. This is what's running as an operating system.

So this is what, you know, your co-worker or your spouse, what they mean to you. It's the repurposing of the information into programs, to algorithms, into meaning.

emotion and so this requires an activation of the reticular activation system. So in this brain picture there's something called the reticular activation system.

This you don't need to know but basically it's like a little fountain of wakefulness. So when you're in a coma or in slow weight sleep, this thing somehow represses the engagement of the brain.

When you need to wake up, it activates and it sends like a wake-up call all through the brain like a sprinkler system. And so this, again, a lone study I found in the literature, but one that I think is just killer, as we would say, it's amazing.

In 2011, he comes up with a total paradigm shift and he said, well, why don't we think of REM as the mind's way to wake up, to boot up? It's like you've had your repair of the cycle.

of the brain and the body and it's enough already. You have to jump start yourself out of unconsciousness. So it's a process. So he thinks REM sleep occurs because you're waking up.

So maybe sleep is like three brief awakenings which we sometimes ignore or they don't happen. But I believe that the adaptogenic nature of TA, because the brain cells are copying so quickly and efficiently, you come out of this process.

And yeah, the checklist is like, yep, we copied 10,000 brain cells. We're all set, boss. And so the brief awakenings are an artifact of the efficient healing.

So you come out of the unconscious state very efficiently. And if you're wise, you'll go right back down again. So let's look at here. What we see in this characterization is that the REM occurs as you come out of the water.

It doesn't occur when you go in. So this is, I think, a good theory that REM sleep is the mind's attempt to reboot into consciousness. And there's just a little overshoot when you're doing things so efficiently, I believe.

When you go back down into the next cycle, there isn't REM sleep. You go deep diving. So again, the water would be a pretty good analogy in that case.

Interestingly, if you get only two or three cycles and you're sleepy throughout the day and take a cat nap, you will go deep dive or you will go right back into REM sleep.

So there is a resumption. It's kind of like a computer program that was Parasomnias are sleep disorders which occur during the slower wave sleep during the Delta Stage 3 and 4 sleep.

And these are triggered often by depression, drug or soporific use, alcohol, sleep deprivation, and they're commonly things that we know as the bedwetting.

talking in our sleep or some niloquy, rhythmic movements, restless legs, grinding of the teeth, bruxism, they call it, sexual behavior, eating, even being confused, screaming and appearing to be awake and then also walking around and typically this is partial or incomplete or aberrant activation of your consciousness while you're really not supposed to be awake so they can be very strange.

Some people think that schizophrenia is a type of sleep intrusion into the waking consciousness so the illogical delusional magical sleep thinking may make little cameo appearances in the schizophrenic mind.

Oneurology is the study of dreams. So here's some interesting facts that may or may not be true. I read them on the internet. So it said that that has to be true.

I guess you read it on the internet, but that tautology aside, it said that within five minutes, you forget 50% of your dreams and within 10 minutes, 90%. And one of the theories is because it's not as intense.

It doesn't have the full majesty of the smell, the vision, the touch, the emotion that the conscious mind can generate. Interesting thought experiment, do blind people dream?

Well, they do, but without images. People who lost their vision after seven, they can continue to have visual dreaming, but the ones before, they have smell or definitely emotional dreaming.

Although if you don't use it, you lose it. So if they remain blind past seven, again, the strength of the images fades. Not everyone dreams in color. I don't know how to prove that, but that's what they say.

Dreams use symbolism. Of course, the brain isn't coded with the King James English version of language, so of course everything is symbols. Negative emotions, again, because they're so strong, are more common.

Dream Motifs and Psychoanalytic Views

But if I'm not sleeping it's because I'm frightened Of what I might find behind the curtain There is a signal, there is a warning I will not teach them before I hear the morning dew.

Also, they incorporate ambient sensation. So if you're trying to get your brother to go to the bathroom by soaking his hand in water, he might have a dream that he's in some hot tub in the Caribbean.

So it's not completely blocked, as the earlier statement says. There is some processing of the external. Some common motifs that we perhaps have had are being naked and you know an interpretation of dreaming is only as good as you know well it's very faulted let's say that but some people think it's because you're trying to hide something or alternatively if no one noticed that you're awake that you're reassuring yourself the fear or your secret or your identity is unfounded.

Falling is a common motif and that can be interpreted as you feeling out of control or failing. Being chased, not too difficult to understand that that could be you running away from problems.

Forgetting an exam is typical for a high achiever so you feel scrutinized or unprepared. This often manifests for me as you know the whole semester has gone by and I haven't studied.

or alternatively I'm actually decades away from college and I realize I don't have enough credits and they're going to take away the degree so quite unpleasant.

Flying dreams can be an insight insight or mastery symbol. Also I can remember clearly when I was a teenager I had lucid dreaming I could actually pretty reliably invoke flying within a dream and it was pretty fun.

Not so much recently, but that's an interesting phenomenon. And then the running while not getting anywhere is perhaps indicative that there's too much on your plate.

One interesting motif is your teeth falling out, which I've heard was something sexual, but again, Freud was very obsessed with that. It could just be a lack of power, a lack of ability to communicate, and a lack of attractiveness that's perceived.

If you ever get a chance, see Tim Conti's movie Rubin Rubinware. The whole movie, he's losing his teeth, and it's a really funny black comedy, which I think nobody has heard of.

So the greats of psychoanalysis were Freud, Jung, and then there was a little side school in the 50s and 60s, 40s, 50s, 60s, the Gestalt or this other school.

Let's review those. So Freud was, as a young man in Vienna, kind of obsessed with sex, and his later emphasis was not so much. The famous compensatory quote was, sometimes a cigar is just a cigar.

So he thought that dreams were all about wish fulfillment, some kind of latent expression of wanting to have sex with things or these aggression or Oedipal manifestations.

So he would explore dreams and indeed consciousness with this technique of free association on the couch. Secondly was Jung, which was a very, very profound guy who studied comparative religion and mythology.

and who really was a seminal thinker of the 20th century and he understood that dreams were an expression of the shadow consciousness, the counter ego, the stuff that you don't allow yourself to see and that they tied directly into the collective soul or the collective unconsciousness so he felt that there was a world soul which stretches back in time to you know ancient archetypes of storytelling and perhaps forward and and that we were tying to that whole source of consciousness.

This little Gestalt school is more like commonsensical and more that resonates with us currently as both scientific and otherwise enlightened people. It said that we need to experience the present moment and that everyone is caught in the web of relationships.

and that we can only exist in the background of our relationships to others. And I think that's pretty common sense that if we don't live on an island, we live with other people and they do define our borders and our aspirations.

Just a little soapbox speech about sleep apnea. Sleep apnea is something that I've had for my whole life and it's very debilitating. So what it is, is you have usually constriction of the upper airways, so you snore.

And because of the fact that you're suffocating and your oxygen is going on, you have to wake up to breathe. And you can imagine if you're having these events many times an hour, you can't go into the deep unconscious sleep.

So there's nothing as disruptive as sleep apnea. And it's very easily corrected with CPAP or AutoPAP. a little air blown at a low pressure, even among mouth breathers, because I use it through the nose.

It's a wonderful thing. It truly is a qualitative life change.

Sleep Apnea and Sleep Disruptors

And I've had many patients come to me for telomeres activation and say, look, first things first, you're not going to get any benefit from your sleep unless you fix this.

So there's nothing like good sleep. And if you haven't had it, you don't know what you're missing. Critically important that you get good sleep. And again, this study from the Journal of Sleep does show that you get a rebound in that REM sleep once you do introduce real breathing and real cyclicity.

Self-perfects are sleeping pills such as alcohol, Ambien, benzodiazepines. These are horrible. Don't do them. This is what ends up killing all the Janices and the Jimmies and both Hendricks and Morrison.

It's the pills. It's the doc gives the pills and the pills mess up the sleep. and then they might medicate the insomnia with other recreational drugs or alcohol, but it's always the sleep dysfunction that messes you up.

Similarly, when they're up and on with the cocaine and the methamphetamines, ecstasy, and now a very popular one is Pro Vigil. People should not be in control of something as important as their level of arousal.

We're just not that good at managing things like that. And I see just train wrecks. But conversely, if you see podcast 26, you'll see hope. And one wonderful lady was cured of her ambient addiction within 10 days and spoke to her last month.

She's still eight months out, free of ambience. So sometimes you just need that kick. to get out of the problem and addiction involves relearning and without the good sleep cyclicity you can't relearn.

So what we talked about a lot in the addiction webinar is the fact that sleep is what you need and oh it's so funny that the actual picture I didn't realize was the soft watches on the upper left.

A little bit of synchronicity there. You need to shake that extra sketch to clear the mind. And that's the difference. Earlier in the week, I forgot my pills.

I woke up, I just wasn't as clear. There was some residue. you don't call it daytime residue I think but you want a clear slate in the morning so to speak and taking the TA even at a very low dose allows you to cycle more efficiently and wake up ready to go out of the starting block so what are the effects of TA on dreaming and in conclusion it appears that my theory here and this is all theory based on empirical observation and just best guess you know is that neurogenesis, which is the copying of the brain cells that happens to form those declarative memories, it's said that there's about six gigabytes of information in every cell.

So that little queen bee neural stem cells to copy yourself, and that's a bottleneck. And so the more efficiently you can cap off all the 96 ends or what have you, the better.

So that happens faster. The neurogenesis happens faster. And I believe that that's why you come out of sleep. The emergence from unconsciousness is more efficient.

You get through that checklist. You just do it with such alacrity that you can surface briefly. People do acknowledge that their memory is better while they're taking TA65.

Also in the latter two cycles, the REM sleep or the procedural memory seem to work more efficiently as people will report that they work through their problems and they can feel emotionally exhausted but physically refreshed.

It's a strange subjective thing, but it's very common. As long as the incubation is not of a terrifying or anxious nature, that the dreams are just fun.

Like I mentioned that addictions can be relearned. And very important to understand that melatonin even resets the circadian rhythm But also all the things that people take to go up and down are just horrible for natural and healthy regenerative sleep as the current Dalai Lama said Sleep is the best meditation.

I had somebody asked me two days ago. What what's the best way to meditate? I just sleep because again If you put us in charge of all the important things like regulating our own brain show, it's probably not going to be as good as what your body would naturally be able to do.

One ray of hope comes from podcast 21.

TA65, Neurogenesis, and Dream Changes

The Harris twins both resumed dreaming after many years of not at least remembering their dreams at about three or four months. And I would say that three or four months is a turning point for a lot of symptomatology.

Why? Because it allows the cells derived from the now defunct stem cells to run through their Hayflick limit. So this is not uncommon. I've heard this from several patients that their dreaming has resumed and it's very encouraging.

If you have interest in this, see the podcast we just finished on brain injury where remarkable changes in brain function occurred, and I think that they do involve improved neurogenesis, healing of the brain, and it's very helpful.

And again, vivid dreaming is a part and parcel of that repair process. So what is dreaming, if you allow me to wax metaphysically a bit? The Aborigines in the Australian culture describe something called the dreaming.

And this was a balance between the spiritual, the natural, the moral elements of the world. It's where we all emerge from primordial nothingness and water and goo.

And if you study, which I am very into looking at modern scientific cosmology, it starts to rhyme a bit with the other traditions. The Greeks talked about this darkness over the water or the chaos.

And certainly one of the most beautiful non-literal images would be Vishnu on this serpent, floating in the serpent in the sea. And out of his umbilicus, the center of the universe comes, and that's Brahman or the universe.

And he breathes in, he breathes out, Brahman, another universe is born and dies. And so it's growing out of this lotus in its belly button. So it's thought that the reality is like this lotus floating on the water.

And the lotus is interesting because it doesn't get dirty. It just floats on this sea. And for some reason, the oils keep it from getting dirty. When you look at the best minds of string theory, which has evolved into this membrane theory, they posit 11 dimensions in almost like this flower-like visualization with almost like a lotus-like 11-dimensional representation.

And they think that the universe is created the big bang and then the big crunch. It's just these two membranes or universes touching, sparking and then untouching, almost like, you know, breathe in, breathe out.

And so this beautiful image of Vishnu birthing a lotus through his umbilicus and then disappearing into the water it seems to hold some resonance with the best scientific minds and that's why the M theory with the membrane theory has also been named by Ed Witten as the magic or the mystery or the matrix.

So whether you like math or whether you like religion or whether you like God, those are the three flavors. So dreaming, where does it come from? I don't know.

We all do it. It's all a functional house cleaning of the day. All I know is that people taking TA65 have really different dreams. And over the years, I've used that as a measure of how effective it's working.

We learned about sleep architecture, why the first two cycles differ from the last, and just a little smattering of fun facts about dreams. So anyway, I think that if you're taking TA and you want to convince somebody to try it, tell them, you can pretty much guarantee if you take it according to Dr.

Park's method, you will have different dreams. I think that's nearly universal. Again, for some people that's a little unpleasant, but as long as you think good thoughts, it's like the old maxim, never go to sleep angry at your spouse.

Metaphysical Reflections on Dreaming

I think that holds a lot of wisdom because you're programming yourself to be resentful. Alright everybody, thanks a lot Dr. Ed Park, completing webinar on Dreams and Dreaming, number 39, and everyone have a wonderful day.

Thanks, bye. All my life I have waited To be given any word It was screaming to be heard The earth can be any shape you want it. Any shape at all. Dark and cold or bright and warm.

Long or thin or small. But it's home. And all I ever had. maybe why for me the earth is flat and if love is all you're missing look into your heart is anybody home Thanks for tuning into the Recharged Biomedical Podcast.

Closing Remarks and Outro

If today's episode got you thinking, you'll love my book, Exosomes, Songs of Healing. It's packed with cool analogies, full color illustrations, and all the science you'll need to understand how exosomes are changing the game in aging and regenerative medicine.

You can grab it in paperback, ebook, or audiobook, whatever works for you. Now head over to www.rechargebiomedical.com to check it out. And don't forget to like and subscribe so you never miss another episode.

See you next time.