Introduction to Epigenetics and Fertility

Excited to talk all things fertility, specifically around epigenetics, which is just one of your babies. I feel like you you talk about it a lot. You are kind of a researcher in this field.

So I'm very excited to hear how epigenetics and and the role of that in this to conceive or potentially making it easier to conceive when we know what we're dealing with.

Yes. It's so good to be here with you, Dr. Aumatma. I thank you for having me. And I'm really excited to be here and to talk about epigenetics with you too and nutrigenomics which is the nutritional arm of epigenetics, because it's not something that people are aware of that people are talking about.

We are at the fertility and pregnancy Institute, one of the only places talking about this. And it's not just critical for our fertility and pregnancy outcomes, but it's also critical for the health that we're setting up for future generations.

And we're really in a crisis when it comes to the state of the health of children, the state of the health of adults in America and in the Western world specifically, but also throughout the world and these are things that we have control over to a large extent, and maybe I don't want to say control over, but the ability to shape to a large extent.

So I want people to know about this because this is powerful. Absolutely. I love that. And you have the best term called Super Baby. Yeah, we love that.

You can't help but smile when you say that word. Right? It is just so good. So yeah, you. Love that term. And so is that what you're talking about in terms of shaping the health of your future, baby?

Yes, you got it. So I wanted to say just back up and say first and foremost, that when we talk about someone having their super baby, we literally mean their super baby.

My super baby, your super baby. Not a super baby in the sense of one person's baby being better and others, because. That is. Absolutely not what we mean.

What we mean is that you get to have the healthiest, happiest, brightest, most well-adjusted neuro cognitively strong and resilient to the stresses of the modern world Baby that you can have given your genome and your epigenome, which is how your genes express themselves and which is the part where you can pull levers.

And then that of the other person providing DNA for your baby. And that's what we mean by super baby. So it's really about doing everything within our power.

To Create an epigenome or genetic expression that supports our healthiest fertility, our best pregnancy outcomes, and also the healthiest programming of the children we're creating.

And also our super grand babies, because we know that this process, it's called epigenetic inheritance, crosses at least two generations. We have scientific data to show this and we think more than two generations, three, four, maybe even beyond that.

And so when I think about, you know, any of us who want to have children, who want mommies, and I'm going to assume that everybody listening falls into that camp of people.

There is nothing more important in the world than getting to be mamas and then how well our children are in mind and body and spirit. And it's like such a it's such a gift to like eventually have that experience of motherhood and, like, creating this child and and then watching this child grow.

And it's just like I, I started, I grew up, I started way before I had a child. And like, after I had my kid, I was just, oh, my God.

What Super Baby Means

Like, well, it's even the magnitude of doing is so incredible because we got to see that that child grow and like, oh. Dr. Aumatma I'm with You. I'm with you.

So it's you. You when you work in the space of fertility, you know that what you're doing every day of your life is so meaningful and so important. But until you have your own super babies.

And I also started this work 27 and a half years ago, and my oldest super baby is ten and my youngest is five. So anyone anyone who's listening who's like, oh my God, I'm an old.

My older mom, or. Did I wait long? I had all three of mine in my late thirties, conceived on the first try using the Prime Esther protocol. And they are the epitome of my super babies that I they their their dreams come true.

And that's, that's what you're saying. So you all we only know that what we're doing is so meaningful and so important. And I've been completely obsessed since I was a five or six year old girl.

But then when you have your own super babies, you really feel so deeply the magnitude because it's such a gift. They are such a gift. And the work that you do to create your super babies is the gift that keeps on giving.

I Dr. Aumatma, I don't know if you know that I lost my mother at birth, which is how I became completely obsessed with reproduction so early in my life.

It's such an odd thing to be a five and six year old girl and be obsessed with observing every pregnant woman. And, you know, why does she look unhappy and what does she need and what she's been through?

And how do we help them and all of these things and being having that start to life, which was horrible and so rocky just really taught me that when reproduction doesn't go well, it's one of the most painful things in the world.

And I remember a woman named Dr. Melissa Petersen, who's also an expert in epigenetics, said to me, You know what's so amazing from your life experience?

You could have really internalized that fertility and pregnancy and birth are these scary, hard things, and instead they have been so beautiful for you and in your life.

And I, I was like, you're you're right about getting that. I was never afraid about being pregnant. I was never afraid about giving birth. Even though my mother passed away, giving birth to me and she was only 27 years old.

So you know, that shouldn't have happened and mean it and the is that even though I had this profound awareness that when reproduction goes wrong, it's the most one of the most painful things that can happen in life.

I also deeply believed that it can go right and that when it does go right, it is one of the most magical and beautiful things we could ever experience.

And I'm so beyond grateful to be able to say that that has been my life experience and that that has been the life experience. Now, a thousand men who have come to us, having struggled for up to two decades, have having had 17 pregnancy losses, having an AMH level of zero and being no cycle for ten years, 15 years, and being told like you're already in menopause, this isn't even possible for you.

You're old, this isn't working. You have PCOS impossible. Right? And my goal every day is to say, let's do everything that we can to be like we have to honour the rules of nature.

But I want to push every boundary of what we once thought was humanly possible for human reproduction, especially female human reproduction, which we are.

All the messages are about how limited it is and how limiting it is. And I don't I don't want that, I want that reality for yeah. Same we are so like in it.

Yeah. Yeah. You know what, let's get into the so that people are really like hungry for this knowledge. So what are really like simple simplified level, what is epigenetics and what role do you see in how it.

Okay, so I think you're right that people are really hungry for this knowledge because people are really hungry for new knowledge when it comes to fertility.

Like we don't want to hear about just the fertility cleanse or the fertility diet or, you know, not that those things aren't components. And we need new information, we need better information.

And so I think that we are really hungry for that. So at the most fundamental level, epigenetics means above the genes and you can think of it as think of your genetic expression as a light switch.

And let's assume that the light switch, you know, you flip, you can flip it on and you can flip it off. And it also a dimmer, you know, the little thing that you push, right?

So you can. Get. The genes on. You can flip the genes off, you can dial them up, you can dial them down. And so that's that is the essence of epigenetics.

And so the importance of that for fertility and for pregnancy outcomes and for the programming of our super babies and our super grand babies and beyond is that we want to dial down our genetic weaknesses and vulnerabilities, and we want to dial up our genetic strengths and privileges.

And we all have them, no matter who we are. I We have this concept of, of super fertile that we teach. And this is the idea of fertile is well, it produces your super babies, of course.

And it has epigenetic underpinnings. But the point of it is that your fertility is so super that it works for you even when conditions are imperfect, because guess what?

Conditions are going to be imperfect for every single one of us, no matter who we are.

Genetic Testing vs Epigenetic Testing

No matter how genetically we look like we've won the lottery, no matter how charmed our lives look to be, whatever it may be, and I use myself as an example, obviously I follow what I teach and obviously I'm super fertile because at a time in my life when I was supposed to have 5% or less chance of conceiving in any one cycle and 90% chance of miscarrying, I conceived all three of my super babies on the first try.

Never had a pregnancy loss and have my super babies right. And yet I have the beta thalassaemia trait which puts me at risk for all kinds of fertility and pregnancy complications.

I have a sluggish thyroid because my thyroid gland is too small for my stature. It's smaller than the average person, likely due to childhood poverty and illness.

It's smaller than the average woman's thyroid. And I'm bigger. A lot bigger than the average woman. Taller, just bigger. So it doesn't there's nothing wrong with it, but it doesn't produce enough thyroid hormone.

No matter what I do. I suffered insane poverty and abuse as a child. All of which put you at risk for having fertility challenges and pregnancy complications in adulthood.

Women who are abused as children have, in some cases, 30 to 40% greater likelihood of having fertility challenges in adulthood. So I had so I have had so many things working against me.

And yet because I'm super fertile, my fertility is working for me even without conditions being perfect. So that's what we want to achieve with our fertility.

That's the goal because conditions are not going to be perfect for anyone. Yeah, absolutely. So this we have our genes, we have the expression or the things that are on top of the genes.

And then yeah, I'm curious if you feel like everyone across the board that's potentially planning to have a child should get their genetics tested, their epigenetics tested.

And I want to differentiate because there's a lot of confusion when people say, oh, I've already like they already did the genetic testing. And I'm like, yeah.

That's not really what we do. Yes, yes, yes, exactly. Let's talk a little bit about the difference between what a conventional reproductive clinic might do as genetic testing versus kind of the snip testing or epigenetic testing, which is what I'm assuming you're doing as well?

Yes, absolutely. Okay. So there are a couple questions in that. So let me go one by one. So first thing is, it's very different to do genetic testing and genetic counselling at a reproductive clinic.

A perinatal allergist, to assess risks that you could pass on because of traits or genes that you have and you're the person, the other person who's going to be providing DNA for your baby and how you combine with one another.

And there are some instances in which a couple genetically is mismatched. That's that's really heartbreaking when that happens because those kinds of fertility challenges, artists to overcome it doesn't mean that they can be overcome, but it's certainly difficult.

So in the traditional kind of genetic testing, you're looking for passing on diseases that are really associated with one trait with one gene. So for example, I said I have the beta thalassaemia trait.

The Thalassaemia is considered the sickle cell of the Mediterranean and I'm 99% Egyptian and 1% Ashkenazi Jewish genetically. So it makes perfect sense that I have the beta thalassaemia trait.

And also my parents were second or third cousins, which sounds absolutely crazy to our American sensibilities, but very common. Yes. Even to this day, because people want you to marry someone they trust and relatives are the ones who trust each other the most.

So that happens often. But because of that, I have a couple weird recessive traits include including the beta thalassaemia trait and also at least one or two other ones.

And so I had to have genetic testing with my husband because my husband is very mixed, including North African and sub-Saharan African blood. And it's if I could not have children with someone who had any form of thalassaemia trait or any form of sickle cell trait, because that would mean combined to make full blown disease.

Right, which is fatal. The fourth thalassaemia is fatal. So that thing that they're looking at in the genetic testing, that's not what we're doing here.

We're looking at. A whole. Bunch of genetic snips and we're looking at what are the things in your genes that are working well that that swap for advantages and what are the things that are setting you up for disadvantages?

So the most commonly known example of this is the MTF, our very buzzword in the utility. But there's so much more like that, right? Or so much more than that.

Now every say all the time I have my f r we all have empty GFR right? But what they're saying is they have a higher risk variance which puts them at risk for hypo methylation and methylation is an epigenetic process.

And when, when you have a variant that for hypermethylation, you have a higher chance of having fertility challenges, of having pregnancy complications, experiencing pregnancy loss, and of having children with certain health problems.

And these this same these same higher risk m.t GFR variants related to hypermethylation also put you at risk for compromised detoxification and those compromised detoxification also contributes to those risks.

Right? So this is an example of what we're doing when we're looking at epigenetic risks or what we can do epigenetically to dial our genetic risk and dial up our genetic strengths and privileges now.

So that's the difference. They are very different and they are they are both important. One is like ensuring that there will be no emergencies and you should rule out the possibility of emergencies.

Now, if you have fallen in love with and married someone or partnered with someone who is, you're not genetically compatible with that. That's a big question.

But you should be doing that and you should be ruling that out. I will just say, like there are ways around it. So like at the genetic counsellor kind of can talk to people and say, okay, like the it's really set you guys up for a high risk pregnancy that maybe your child will have a genetic disorder.

Maybe you want to consider a sperm donor and like in that case, they can like work through with you. So it's not the end of the world. For those of you listening that are like, Oh my God, that's me.

It's okay. It's not the end of the world. There's ways around it that you guys can just like work through as a couple and talk with the counsellor to figure out what you can do.

But yeah. On the other side. Absolutely. Absolutely. Absolutely. It doesn't it doesn't have to be. It it is in the end solutions. It it is it is a complex scenario with a lot of it.

And thankfully it doesn't happen that often. So that's that's the beautiful thing, right? So that's the good news. So but that's that's one side now that do the like our prime DNA service, for example, is a much bigger understanding of what are your genetic strengths and vulnerabilities, not about specific disease risks from any one thing, but how your profile looks overall and a number of different things.

What supplements you might need more or less of how you do with certain foods, whether what your gut microbiome is likely to look like, how how you are going to respond like medications, how your hormones are your what your hormonal profile is likely to look like, what's your better sleep and circadian rhythm?

What's the best form of exercise and recovery for very different kind of information about your body and what type of lifestyle and nutrition, etc., are best suited to your greatest genetic expression.

So is it is it really that you should be eating paleo or does your specific body actually need more carbohydrates, those kinds of things? Now, that being said, the other question you asked was, should everybody have this epi genetic testing?

I believe that I'm a proponent and I've done it for not just myself and my my husband, but also for my three super babies, because to have that kind of information and knowledge of your body that early in life, it's just absolutely amazing because you know how to take care of yourself in a way that you wouldn't know otherwise.

So obviously I'm a strong proponent of that. At the same time, we know that there is a specific a epi genetic approach to improving fertility, overcoming infertility, reducing risk of miscarriage, reducing risk of adverse pregnancy outcomes, reducing risk of autism and ADHD and other health, mental and physical health and

neurocognitive health conditions in children.

That applies across the board. And so if it's not within your means or desire to do this form of testing, that's fine.

Methylation, Age, and Fertility

Follow the steps that we know, work for everybody. And then if you're that person who wants that 10 to 20% personalisation to dial up your genetic strengths and privileges and dial down your genetic weaknesses and vulnerabilities, then you have that tool available to you as well.

So to me, the epi genetic testing is an add on, not a replacement for the Prime Esther protocol, this epi genetic approach because the reality is that that's got to be your foundation and then you can get to.

So in essence, like Paul is going to support all of your epigenetic optimisation any way and. Exact if. You want the information, if you want the tangible like you know exactly what's happening in your body thing is really helpful.

Okay. So I would say that you put it another way, it's like the Prime Minister protocol. Everybody needs and whether you're having fertility challenges or you just want to make sure you have your super baby or healthy, as happy as brightest, most well-adjusted baby that's going to give everybody 80 to 90% of what they need.

AP Genetically, yeah. And for most people, that's clear. That's sufficient. I'm not going to tell you to get epi genetic testing. Just so we bring in more money for the epi genetic testing that's going to give you 80 to 90%.

And for most people, that is absolutely sufficient. Yeah. If you need that additional 10 to 20%, if you need it because of the complexity that you're facing, because you don't feel well or you are someone like me, you love data, you want to know, you really want to take what you're doing for yourself to the maximum heights, what you're doing for your super babies, then that's that's who that's for.

So either you really need it, really want it because you, you're just you love data, you're into biohacking, you want to know specifics and ins and outs of your body as completely as possible.

And hey, if it's within your resources, it's a great thing to have. But most people can absolutely be successful having their super baby without having that last 10 to 20%.

Yeah. Awesome. So you mentioned a little while ago methylation, that's like becoming a buzz word. So let's dive into like what is methylation and what does it do in our bodies?

So methylation is really important because this is very closely related to detoxification. So when you talk about the empty EGFR variant, for example, is all about methylation and the detoxification pathways.

So when you think about it, as we get older, part of the ageing process is a process of becoming more hypo methylated and that's why I believe that we talk about Hypermethylation and the EGFR variants very much in the context of fertility because this affects many outcomes, it can affect cancer risks, it can affect mental health risks, etc.

It has it has a wide range of effects. But when you think about it in terms of fertility, often who are the people with fertility challenges? They are the people who are maybe they're they're wanting to start their families later on in life.

Maybe they're 30 plus, maybe they're 35 plus, maybe they're plus and as we're getting older, we're becoming more prone to hypermethylation as it is. So if you add on this factor of ageing and we're all ageing every single day, so just because we're 30 doesn't mean that we're old, but we are ageing.

Everything all day. So you add on the factor of ageing and then you add on these genetic predispositions toward even greater hypermethylation. And the compound effect is greater when it comes to fertility and pregnancy and it really raises a very interesting issue, Dr.

Aumatma, which is the role of fertility pardon me, the role of age and fertility. And I think that's a really big one for people and I'm sure it's a really big one for a lot of the people listening to us.

I'm sure that you're hearing this every single day. I'm really worried about my fertility because of course I am right. And so what I want is say some.

So absolutely age is critical for fertility. In fact, age is the strongest predictor of fertility. So I am you are never going to hear me say that age is not important.

What I will say age is also the strongest predictor of getting cancer and of dying and of a lot of other things. Right. So the minute someone turns 50, they're risk being diagnosed with cancer skyrockets compared to being under 50, then turns 80.

A woman, I should say, specifically a woman in the United States of America turns 80. Her risk of dying skyrockets compared to prior to the age of 80, because the average life expectancy of a woman in the United States of America is 80 years old.

But just because age is the strongest predictor of getting cancer and of dying doesn't mean that you're going to say, Oh, my God, I just. Have two kids, right, exactly.

So don't you remember when they constantly are bombarded with these messages about age and fertility? What you have to remember is that we're I'm a scientist and so I'm going to use some scientific terms, but I'll try to make them simple.

So we're talking about the normal curve. Who remembers the normal curve? Right. The normal curve represents the average is so in the average population.

Here's what the fertility pattern looks like for a female. She goes through puberty around that, which is much earlier than it used to be, which has implications for fertility as well.

We can put a pin in that and come back to it. She goes she goes through puberty, puberty around the age of 11. Her fertility peaks somewhere between the ages of 24 and 32, which is actually a lot older than most people think.

Fertility peaks. But as soon as that peak is hit, there starts to be a precipitous decline. And that decline gets even greater after 35, but especially after 37, 38 and again after 40 and even more after 40 to okay.

So that's what the normal curve of fertility looks like for the average population. Now, just like lifespan, where we all know, we know this instinctively, the average life expectancy for a woman in the United States of America used to be 81 years old post that post pandemic.

It's it declined to 80 years old. We know that there are some people who live than 80, and we know that there are lots of people who live much longer than 280 years old.

The same thing is true with our reproductive span, which is what I call the period within which we can reproduce biologically. So here's the key to this.

The key is being biologically younger than your chronological age. So if you your chronological ages, your age in years, you don't have control over that.

You were born when you were a baby. Your birthdays come in every year and it's okay. Exactly. And in the end. And your birthday is coming every year and that's a blessing.

Native is not a good idea. Right. So that if I remember, I'll never forget I really big address in 2010 I said the first thing I said is if we're so fortunate, we all will age.

And that's the truth. Right? But what we want to do is to age internally, biologically, epigenetically. And I shouldn't say just internally, because you can see it on the outside as well.

As slowly. As possible. So we don't have we have no leverage when it comes to chronological age, just like we have no leverage when it comes to our genes.

All of our leverage is in our epigenome, which is our genetic expression. And this is one. Of the levers, the primary levers that we can pull to stay biologically young.

And that's really critical. So I'll never forget I had I had this blood workup recently and the doctor oh my God, at 44 years old, you are not in perimenopause yet.

Congratulations. And that's unheard of because and for people who don't know. So the average age of menopause today is, again, somewhere around 5.9 years old.

And the last the last study I looked at and by the way, it had a little bit later no, I'm sorry. I'm wrong that the age at menarche or first period earlier.

So it looks like we have a longer period of time within which to reproduce. But there there is there's some nuance to that. Like I said, we can come back to if the average age of menopause is 50 years old and perimenopause begins 7 to 10 years prior to that.

And remember, that's the average, the normal curve. So there are people going through menopause at 40, 45 and we see that every day. Right. I see that every day at the Fertility and Pregnancy Institute because they're coming to us for help to get pregnant.

They're also coming us coming to us for help for other reasons, because it's associated with longevity, which I want to mention in just a second. So even for somebody who's like, I'm not interested in having children or I'm finished having children there, there are really good reasons beyond having children that you want to stay as biologically, reproductively young as humanly possible for as long as humanly possible.

Not that we're trying, right? We're not. No, I don't want to have a child at 60. I'm okay with that. But oh yeah, I yes. So it's so it's really it's not a question for someone age of 30 or 35 to start to experience perimenopause, perimenopausal symptoms.

That's one of the reasons why there's so much talk about having difficulty getting pregnant at 30 plus or 35 plus because you're you're within reasonable range of perimenopausal symptoms and hormones begin to change and remember that the reproductive system is a mirror. Of.

The larger organism. The larger system, and it is affected by the whole system. We call that the fertility and pregnancy system, right? It's not our fertility and pregnancy health.

There is not there not just in ovaries, our uterus or our eggs. They're affected by digestion, microbiome, the brain, the central nervous system, the hypothalamic pituitary adrenal cortical axis.

I could go on and on and remember that the reproductive system is a mirror of the larger system and it is the first system to begin ageing at an accelerated pace and after that then you'll see the cardio metabolic system beginning to age at a more rapid pace.

And so that's why we call fertility challenges type s diabetes as in fertility. And then type type two diabetes, right? You start to see that with blood sugar, insulin resistance and metabolic inflexibility, metabolic high blood pressure, etc.

and then the central nervous system and the brain begin to age at an accelerated rate in about. So this is happening around the second or third decade type of diabetes.

Psychology, Stress, and Reproductive Health

Then you've got your, you know, type two diabetes starting to happen around the fourth decade and then around the sixth decade of life, the accelerated ageing of the brain, type three diabetes.

So if you're seeing your reproductive system ageing earlier than most earlier than average or even just kind of on par with that normal curve, that's a clue that also these other systems are going to start ageing at an accelerated rate rate on par with the average.

And we don't want that because what's happening on average might, it might be normal, but it is not normal yet. We have massive problems that are happening and so we really not just for our own fertility and for the programming of that health and longevity and fertility of our super babies and our super grandbabies.

Do we want to be pulling these epigenetic levers, but we also want to be doing this for our longevity. So there are a couple really fascinating lines of evidence from the scientific literature that show this really these really intimate ties between fertility and longevity.

I just showed you some of them in talking about the like the ageing, the accelerated ageing is happening. But then also we know that a woman who has children after the age of 33 is twice as likely to live to the age of 95.

As a woman who had her last child by the age of 30. We also know that women who have long and erratic menstrual cycles are more likely to die prematurely, meaning before the age of 70.

So these are all and women who experience diminished ovarian reserve earlier in life also have greater risk for a number of health problems and earlier death.

And so we really want to be addressing our menstrual cycles, our fertility, even if we're not seeking to have a baby right now or we're not seeking to have a baby ever.

It's really I think it just goes to the point of like our fertility or our our menstrual cycles in more is an indicator of what's happening in the rest of our body.

How's our body responding? I feel like every cycle is an indicator of the last 32 days of your life, right? If you have a shitty cycle, you have painful menstrual cycle.

You have headaches, whatever. All of that is a reflection of what happened in the to like four weeks before that. Right. So using our menstrual cycle as a marker of what's happening month to month and it's going to be the fastest thing to change.

People are always surprised, like December and January are the two months that everyone's hormones are out of whack and I'm like, Well, that's no surprise.

I see it on your temperature chart, right? You fell out of your diet. And they're like, yes, no. I didn't have it. I'm like, Oh, yeah. They're like, Yeah, I did it.

I'm tired of cake over Christmas. Like, it's shows. It's okay, but it shows. So it's like, yes, pastors feed. The horror of. It is it's an incredible it's a so it's a vital sign as we've heard before.

But you're right that it is almost this immediate feedback loop and that's really, really incredible. And I think we we talk about a lot of. Factors. That affect this feedback loop and this vital sign, but the inner factors are as critical or more critical, and that is really easy to overlook.

So, you know, I always say to people, it's setting up your food than it is to clean up your thoughts and your thoughts are powerful because they every thought we think, every emotion we have has a biochemical underpinning creed, this biochemical cascade that affects the signalling of our genes, those marks on top of our genes.

Right. That and that is critical for our genetic expression. And so while we while I think it's really easy for people to get really hyper focussed on every bit of food that they're putting in their mouth, every food choice they're making, the supplements, everybody.

And of course, I believe in supplements. I created a supplement line because I believe so much in the role of supplements in healthy fertility and pregnancy.

Our super baby nutraceuticals and supplements are like 1/1000 of the Prime Master protocol. They're 1/1000 of the picture. And yet it's they're really the thing that people fixate on the most.

And I think it's because and it's natural and it feels like it feels doable. It it we want we want a pill that's easier to fix things with a pill and having to, you know, to do this psychological excavation to figure out we can choose the hypothalamic pituitary adrenal cortical axis, the body stress response system, how we can turn off the reptilian reptilian brain and stop having the amygdala constantly, as if we're living in a chronic state of emergency, because the body and the brain, they're so wise that they struggle to prioritise reproduction when they perceive that we are barely surviving and we're living in a constant state of threat, that we're not safe because they are designed to focus in on every possible harm, every possible danger, every possible threat, and really hone in on anything that could be a threat to our safety and to our survival.

They're designed to prioritise our safety and survival above and beyond anything else. So in all of their elegance and wisdom, yeah. What they do and that makes it harder to have a normal menstrual cycle can interfere with ovulation and makes harder to get pregnant and makes it harder to stay pregnant.

It makes it harder to have the hormonal profile that supports a pregnancy being sustained. It makes it harder to programme our super babies for health in the house.

Beyond. Yes. For their for their entire lifespan. So I think it's really critical for us to to things and, you know, to take care with our food and take care with our science, but also to take care with our internal states, which can be so much harder.

And I think that that's really an incredible feature of what we do at the Prime Minister protocol because we are so focussed on psycho neuro immunology and the feedback loops between our psychology and our fertility, which are many and intricate and have profound impacts.

And I will say so we use the fertility pyramid and we can provide us with an image of that if it's helpful for people to see it as shorthand for the complex.

And that makes up our fertility and pregnancy system. And at the base of the pyramid is what we call the psychosexual level has to do with our psychology, our sexuality or sensuality. And it's the base because it's the foundation for all of the other levels it runs throughout all of the other levels, just like it's artificial to make a distinction between mental and physical health.

It has components of that, but so much bigger than that. But also because after 27 and a half years of doing this work now, I can say with utmost confidence that no matter what the tangible challenges someone faces are the keys to unlocking our own innate fertility we all possess it already.

We don't need anyone to give it to us. We just need the keys to unlock. It are always at the psychosexual level. It can be your AMH can be essentially zero.

Your you can know that you have really poor egg and or a sperm quality because you've done IVF in your embryos are genetically you can have PCOS or fibroids or whatever it may be and yet always, always, always without fail, the days to unlocking are at the cycles of it's just absolutely amazing and we don't talk about that enough and I think it's because people are afraid to.

First of all, if fertility is psychological, what does that mean? Does it mean that if I can get you just. Absolutely what

I mean what I mean is that there are these intricate feedback loops between our psychology and our fertility, and that is the base system.

But also but also it's because, like I said, it's easier to do a cleanse. It's easier to follow a diet. It's easier to take supplements. But if you go to an IVF clinic, they don't really want to know about your psychological and emotional state because what are they doing?

Or they're going to say, Oh, you need therapy, like go to a therapist. That could be okay. But really, like I think it sounds to me like doing is really in the sense of like how much our neurology, like what's happening in our brain is influencing our reproduce to centre right and like how much of it how much time overall am I spending in the fight or flight survival mode versus shifting into that?

I am safe in this world and it's safe to bring a child into this world. Yes, exactly So we we actually have a term for this and it sounds like a very spirit, but it's but it's and it does have a spiritual component, very much an epigenetic term.

We call it leaving the porch light on for our super babies and making it as bright as humanly possible. So it's like you're going to a house you've never been at night and there are no street lights because it's a rural area, let's say.

And you if there are no lights and the porch light is in on for the house, like you pass the house on over again, you know, you might be in the vicinity, but you can't find it.

You can't see. It's dark and there are cars behind you, so you're blinded by the headlights and you can't slow down enough, right? And you can't identify which one is the house, but same scenario and they have the porch light on and it's really bright and maybe they have the door open and you're like, That's the house.

There's someone there. They're expecting me. They're saying, Come on in. Right? That's what we want to do for our super babies. I'm like, Here is your house.

The porch light is on. I'm when you come in, those are the signals, the biochemical and epigenetic signals that we want to be sending. And there are very there's a very reliable set of factors that enable us to do that, thankfully.

I love. It. So another thing I want to really point out to people is that so again, you don't have to be you can be an outlier, right? We want to be a positive outlier, which means that we stay fertile for a lot longer than average.

And more and more people are becoming negative outliers in the sense that they're they're not staying fertile. There's something stunted people earlier in life.

So we're seeing fertility challenges growing across age groups and actually growing even at a faster rate amongst younger age groups than amongst older age groups.

So we've really we've got massive work to do. And this is in the general population, not just in the quote unquote inferred population. So we already know we want to be a positive outlier.

But also there is a one way in which the role of age in predicting fertility success and possibilities or potential is inflated. And here's what it is for most.

Most people are imperfect at pre-pregnancy at some point in their lives. For most people who are fertile, very fertile and are imperfect at preventing pregnancy at some point in their lives, which is almost everybody they have an unplanned pregnancy.

I mean, with all the fertility challenges that we have in the world today, 1.86 million people walking around with the diagnosis of infertile and hundreds of millions more who are sub fertile, meaning they don't have a formal diagnosis, but their fertility is weak as an individual or as a couple, there are still almost 50% of pregnancies are unplanned.

Okay. So, I mean, it's hard for people who are struggling with fertility to imagine that, but that that is the reality. And in the United of America, not to exclude other regions.

I'm just I have more of the data from America in my head. We studied family, women and families all over the world. And we now have super babies, all continents in over 43 countries.

So definitely we help people all over the just my the statistics I can pull out most quickly are are often in America. So what happens is that a woman might start getting serious about wanting to have a baby at 35 plus or 40 plus because she's afraid she's running out of time.

She's been told that. And then she goes and she's having trouble. So she's told it's because of her age. But for many of those women, the role of age is inflated because they more than likely have had weaker fertility all along, which is why they have not unintentionally gotten pregnant before this point.

So we role in some level some percentage of already weak fertility earlier ages into the role of age because of that dynamic of people going along and getting more serious about having intentionally having a baby once they reach.

Yeah, yeah. Is that is that here do you following me? So I think it's important for us to know that there there is some inflated estimate. The estimate of the role of age in fertility is inflate to some degree.

The whole age and fertility conversation is always very interesting and I feel like many women are inundated with these messages from fertility doctors that don't give control text or don't even allow space for anything outside of that.

Right. Like, Oh, you're 32, you're too old. I read 32 year old and she started her fertility journey three years prior to that. So she she was essentially 29 when she started then through nine IVF cycles with three different clinics, so three cycles at each clinic and they just keep moving clinics every time.

And so I'm like running through the numbers with her and she, I was like, What? What's happening? What's the reason? She's like, Oh, they're saying it's unexplained infertility due to age.

And I'm like, You started this at 29. How does this have to do with age? So let's just put that aside. Over there.

Hope, Partner Choice, and Closing Thoughts

And then we're going and everything mine had to do with the introduction of sperm. So as soon as they introduce the sperm to the embryos fall apart. And I like.

To. Yes. Which is completely crazy. I know. Is it not. Infuriating? It is absolutely infuriating. It's like not resting in this jets of age, because I feel like you made your point so clearly when you're talking about, hey, people die on average at 80.

That doesn't mean as soon as you turn 80, you're dead like. No, that's not how it works. Exactly. Amy And I think we need more new. I mean, I've I'm the work we do is like you're pregnant with hope.

It's still full of hope. I mean, I know that one of the things people feel when they find, wow, I feel hope again where I thought there would never be hope again.

And I really believe I mean I'm and I age funded and published and I really believe and hope that is that has two feet on the ground is grounded in reality that's so critical to me and I will be the first to acknowledge like I said, age plays a role and we need to be having a much more nuanced discussion about this because I'm now 45 years old and I know that biologically and reproductively I'm younger than probably the average 30 year old, if not younger than that.

Right. So we need to be having nuanced discussions about this. We can't just say because you're this age, right,

this is what's going to happen. And I think I think that that's absolutely, absolutely equal because our idea for people and that doesn't help, that doesn't support.

It puts us more like a stressed out place. If we actually buy into the belief that, oh, I'm 35, that it's over for me, or even like I've talked to plenty of like 33, 34 year olds start working out a little bit because I'm like, Oh, I don't have the perfect partner yet or he has it.

Yeah, he's not ready for a kid yet. It's like, okay, that's okay. Let's just do love. Let's figure out where you're at and not freak out about it. Yes.

Well, I think it's easy for, you know, for us to say with, you know, our expertise, though, you know, wisdom, I think, having had the 30,000 foot view.

Over so. Many families, you can't help. I can't help but carry the wisdom. It helps me to be a little bit more calm about that. But the message is there's so much hype out there, and I think that that's really an issue.

And one of the consequences of that that I see every day is women settle for a partner who they wouldn't otherwise settle for and with because they're afraid that they're running out of time.

And I will say that, you know, while the role of age can can be malleable and you can slow and reproductive ageing, having and raising a child with the wrong person will always.

And I the reason why I know that is because I have I have a front row seat to so many couples. It's so obvious that it's one of the hardest things. I mean, who you choose for your partner.

Pardon me? I'm just going to plug my commercial. I'm talking. Who will you choose for? Your partner is one of the most important decisions you'll ever make in your life.

And and if. You have children with them, you're. You're with your life. And if it's not easy relationship, well, you're you're in for a difficult time.

So I think it's it's it's so harmful to make decisions on feeling that biological clock pressure and so we need to be talking about it. Yeah, that's actually the impetus for me to get into fertility was being with the wrong partner, him wanting to have a child and I was like, Oh shit.

And I could hear my uterus being like. No. And I was, Oh, that's very good. Thank God you listened because I think sometimes it's ticking so loud. It's hard to listen. It's hard to hear it.

But looking at my child now, and literally every time I look at, I'm like, Big God, I did not have a child with that person. It's yeah, like that amount was like immense.

Like just a knowing do I have we have the child that we have that I love so much and of course you're going to love your child either way. But to have that child with the wrong person would have been a complete like shift in life plan.

Right? Like just yeah. So, so and your body, like, we could just talk about that because the like, I could hear my uterus. I could also feel like every single cycle is the most painful cycle.

I didn't have cervical mucus like my reproductive system was literally at its. Yeah like I was going to just. Let you three. But the body's wisdom is just absolutely incredible and I have to say all I had the night and I know you you had this with your your the person it up being with and having your child.

But when I met my husband, it was like my. DNA just. It was like I was. There. Combined with him, like, and my husband. Always said to me, I knew I. And, you know, I have to tell you, my super babies all this time, all academy at eight years old, it's the best youth development soccer league in the world, in Europe.

And we spend most of our time outside of America because of that. And it's just I say like, don't let your children in because people always want to identify someone as athletic.

One person is going to do that. And and I'm here to say to you, we do have to check a box and fit neatly into that box, and neither do our super babies.

And we need to protect them. From. Society's tendency to do that, because your super babies can be amazing athletic and. They can. Yeah. Math, tennis and amazing social emotional functioning.

And I mean, I will never forget that my or baby, his teacher said, oh my God, he's a beast on that. He's like the Incredible Hulk on the soccer field.

And he got the highest MATH score of anybody, you know, like, how is that possible? Or our pediatrician. Okay, so normally a child is either physically advanced or verbally advanced and you have three and they're all both.

How, like, how are you guys doing this? But that, we're not special. That is possible for you too. And I want you to resist the urge to put your super babies in a box.

And I want you to, like, f off when somebody tries to do that to them, because they can be everything that they want to be. Love it. Thank you so much for joining me and just having this chat.

It's been really fun. Oh, fun. Yes. And I hope it's I really hope it's blessed. The people who need it the most. Those of you listening and have gotten some wisdom, some pearls.

And most of all and I am not going to put words into your mouth, Dr. Cleopatra, but for me, I hope that it shifted a perspective that helps you have a little more hope grounded in science.

Yes, the 100% that is that is absolutely I mean, that's basically our our our motto, our driving, our top driving. And I just want to close and this this talk, which has been so, so nourishing by saying that in the hands of life, there is a significant difference between playing and playing to not lose and you can you can feel the energy of that because there's like a control fear.

I don't want to lose. I don't like the it's fear mode versus like I'm. Owning this yeah expands expansion. Like I'm going to start in my fertile power and self authority and I'm going to do everything in my power to lay that strong epigenetic foundation for my fertility, for my pregnancy, and for my super babies and my super grand babies.

And I'm so proud of the legacy that I'm handing to them. And it's not going to be perfect. I'm going to be perfect. They're not going to be perfect. But that's not the point.

The point is, I'm going to know that I played to win, that I showed them that example that I stepped up to give them the best of me and that I do that every single day, not just in the Prime Minister.

Yeah, but just to conceive, not just to have them. Not just yet. But but every day. And I would say it's the thing I'm most proud of as a mama is just like the way my super babies are beasts in the best way because they're so sweet and smart and play.

But physically they are beasts, all three of them. And I am a beast in the way that I like show up. I am always the loudest mommy in the room. Don't care if I look foolish like I don't care if people make fun of me.

All I care about is that they know I'm there. They know I'm there. Their number one fan that I am, they hear me cheering for. They will always remember the way I show up for them in a big way.

And that's to me what primestering is all about making our super babies is all about. And it doesn't just end with making them and getting them in our arms every day, raising them forever, so.

Much with them. And you're such a wonderful momma so thank you for the work you're doing and the reading that you're bringing into the world. Thank you so much.

I appreciate thanks everyone for joining us. Hope you enjoyed this. We'll see you next time.