[00:00:00] **Juliette:** Hello, and welcome to *At the Back of Your Mind*, the *Inspire the Mind* podcast that brings you the sciences on mental health, with a no-nonsense attitude. I'm one of your hosts, Juliette, together with my scientist friends, Carolina and Maryam. We're often joined by fabulous guests, so grab a cup of tea and let's dive into what's exactly at the back of your mind today.

Hi everyone! Welcome to today's episode. I'm joined by Carolina and our behind-the-scenes magicians, Melisa and Celeste. Unfortunately, Maryam can't be here today, but she's with us in spirit. However, we do have a very special guest. Etta, hello!

[00:00:52] **Etta:** Hi everybody, I am Etta, and I am an Italian psychiatrist and a researcher at King's College London.

[00:00:59] **Carolina:** Welcome, welcome, Etta! We're very, very excited to have you here, our first ever guest. It couldn't be anyone but you. It was clear to us from day one that we thought of this podcast that you'd be our first guest.

[00:01:15] **Etta:** Wow. Yes. I feel very privileged, so I'll try to, yes, to do my best.

[00:01:21] **Carolina:** So, we'd like to ask you, first of all, due to the name of our podcast, *At the Back of Your Mind*, what is at the back of your mind, Etta?

[00:01:30] **Etta:** At the back of my mind is, to be honest, my next holiday to Italy when I'll be able to see my family again in Puglia. And this will be in one month time. So, I am from Puglia, this part of Italy that is the heel of the boot, you know that Italy is shaped as a boot. And

you know, because of COVID I am- I have seen my family very rarely this year. So, in one month time, I'll go there again, and I'll see them all is what is now at the back of my mind. Did- did you wanted to know now or more in general from a philosophical point of view? I hope it wasn't.

[00:02:11] **Juliette:** No, I- I think that's very good. To be honest, I'm really joining you there in the sense that my holidays are very much at the back of my mind.

[00:02:20] **Etta:** Ah, it's what keeps you going on in this moment.

[00:02:24] **Juliette:** So, one other question we like to ask in this podcast, even you're the first guest to ever be asked this, but is, are you a self-proclaimed expert in anything?

[00:02:36] **Etta:** Oh, this is a very interesting question. Probably you would expect me to say something like psychiatry or immunopsychiatry, but I am an expert in *Star Wars*...

[00:02:47] Carolina & Juliette: [Carolina and Juliette laugh]

[00:02:49] **Etta:** ... *Harry Potter* saga. Yeah. And the bit of the, the life of *Queen*, the rock band, of course. That's what I am probably an expert the most.

[00:03:01] **Juliette:** So, what you're telling us Etta is you're a big nerd. In your professional but also your personal life.

[00:03:08] **Etta:** No, I mean, I- I finally accepted these. Am I a nerd? Is this alright? And I decided yeah, it is perfectly alright. And I love it. I love to be a nerd.

[00:03:17] **Carolina:** Can you tell us a bit about your research and how it ties in with- with what you do as a psychiatrist with your clinical practice?

[00:03:24] **Etta:** So basically, as I failed several castings for the *Harry Potter* saga I decided finally to- to go into research and I, yeah, I was, while I was doing my psychiatry training in Italy, I was also having my psychotherapy training and I became gradually very interested in the interface between body and mind.

So how mental health and, you know, your body health are really connected. This is important also, when you treat a patient to address both together so when I had the opportunity, I came here to London for an internship and I found the-the *SPI lab*, the *Stress Psychiatry & Immunology Lab* and they, we actually, we conduct research on the role of the immune system in psychiatric disorders.

I mainly study depression and so my research, what I've done so far, I try to understand how the immune system can be linked to developing depressive symptoms and also how it can be used as a target to treat depression, okay? To find new therapies. And childhood trauma is also an important part of it because childhood trauma is one of the most important factors that lead to an activation of the immune system, and it also predicts the risk of depression.

So yes, it also, I feel that I have, I have studied a lot...

[00:04:54] **Carolina:** This is something that I always question when it comes to childhood trauma or- or anything that seems to be triggering our immune system.

[00:05:04] **Etta:** Yeah, it is a very- it is a very interesting, and I would say stimulated question. I mean, to see it from that point of view, from what I've seen, I mean, I think that the immune system, as you said, provides a reaction or a defence to- to stress, to infections.

And this reaction is called inflammation. And this is physiological or physio-pathological if we want, and then it's- it's safe, it's- it's a defence. What we have noticed is that, in some people, this raised inflammation, this raised activation of the immune system can become chronic, and so your body is set gradually on a different threshold of inflammation or different levels of inflammation in your body, in your tissues. And so if this becomes chronic, this can then lead to the development of psychiatric, symptoms. With my group and also during my PhD, we have hypothesised that this might be because also the brain is gradually affected by the inflammation. And so, several cognitive and also emotional responses might be affected, regulated by the brain.

[00:06:21] **Carolina:** So rather than almost a- a linked process, it's almost like a completely abnormal thing that is happening, and there's no logical way why- why this would be beneficial in the long run. It's just, there's such a high level of chronic inflammation. What we mean by this is inflammation that is constantly switched on, which then leads to a completely unexpected and not necessarily beneficial response because this was never meant to happen in the first place. Right?

[00:06:51] **Etta:** Well, we'd, we don't- we don't have a clear answer to that, so we cannot conclude that that's clearly or necessarily abnormal. What we can say is that it is associated with symptoms of- of depression. Okay?

Whether, then for example, if the brain is affected, some cells create a neurotoxic reaction, but others actually are reproducing a neuroprotective reaction that it still be possible. But yes, I would say that so far what we know is that in the longer term, it can cause psychiatric symptoms, psychiatric disorders, and I wouldn't necessarily say that they can be adaptive or a healthy adaptation. No, they are a pathological, unfortunately, development.

[00:07:44] **Juliette:** I think one interesting question from that, and it's one of the questions that I think we get a lot as scientists, and you might be, I think maybe a very good person, to talk about that is, okay, you know, some depressed patients, you have increased inflammation, you have this overactivation or that can at least contribute to depression, but what does it mean on a practical level, on a patient level, and I guess as a psychiatrist, this may be where your interest really lies, which is how can you apply the-the findings of your research, or how is your research helping patients?

[00:08:20] **Etta:** Thank you for the question because the-the real answer is that it is important for the patients, and it's important not only for doctors who are psychiatrists, but it's important also for doctors who see patients who suffer from inflammatory disorders or disorders that involve immune dysregulation and that are more likely to develop psychiatric disorders.

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So, the concept, it will improve this communication between

interdisciplinary approach. For the patient, this means that, for example,

those who already have conditions that are characterized by increased

inflammation, for example, people with diabetes, with rheumatoid

arthritis, psoriasis, the doctors can identify early those that are at risk of

developing depression.

And I've also tested with my PhD some immunotherapies, some anti-

inflammatory therapies, for example, could be used also to treat

depression, so as an addition to the antidepressants, and particularly for

those who don't respond to antidepressants. So, this is the interesting

development from the patient's point of view that this research is, is

exploring.

[00:09:34] Juliette: You can also follow Etta on Twitter if you want to

know more about her. And actually, one thing that pops out from your

Twitter is your involvement with Women of the Wohl.

[00:09:46] **Etta:** Yeah.

[00:09:47] **Juliette:** So, tell us about...

[00:09:48] **Etta:** Of course

[00:09:49] Juliette: ...what Women of the Wohl is, how you're involved

in mainly like why it's important.

[00:09:55] Etta: We hosted very nice events yesterday and we'd

continue to do so for the next three weeks with the Women of the Wohl,

but I will just explain first, so this is an association for students and staff

from King's College London, and it's named after the building where I

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and my- my friends, founder friends, are based in the Maurice Wohl building. This is a network aiming to promote inclusion and diversity.

So, in particular to, for example, explore and, understand better the biases relating to gender related to ethnic minorities or to all the underrepresented groups in science and in- in STEM, as we call it. We organize several events that can be workshop on how to deconstruct bias and how to with doctors we impersonated we reproduced a typical situation in academia when hiring candidates and how they could be biased by gender differences or other factors.

But also, we are hosting an event this week that I was mentioning before; we are celebrating the work of Black researchers who are neuroscientists, who are also very underrepresented in, at least in our context, in our building, for example.

Every week we have two fantastic neuroscientists from all over the world, so not only from UK talking about their research, and the attendees can also ask questions about their experiences, their career.

But we are doing this because we-we think that it's important to have role models also for young black kids that-that want to become researchers, and they can see that this is absolutely fantastic and possible while listening to these speakers. So, if you want to know a bit more about this initiative, just follow the *Women of the Wohl* on Twitter and you will find all the information.

[00:11:55] **Carolina:** Can you remind us of the, the Twitter handles for the *Women of the Wohl* and for yourself?

[00:12:00] **Etta:** So, for the *Women of the Wohl* is just @womenofthewohl. Wohl is spelt W-O-H-L and for myself is @EttaNettis. It's very easy.

[00:12:13] **Juliette:** I have one question relating to- to what you were talking about-about having role models, the three of us speaking today, so we're all white, but even in spite of that, did you feel like you had good science or women in STEM role models growing up?

[00:12:34] **Etta:** Yeah, I think that that has been very important. I would say the main role model for me has been my PhD supervisor who is Dr Valeria Mondelli who is based at King's College as well.

When I arrived here in the UK, I was very interested in research. I hadn't already decided that that was definitely for me, that I was good enough at it. But I mean, just looking at Valeria and also the fact how she- she encouraged me or how she taught me how to interpret the data, how to think when you think scientifically, it became really a big inspiration.

Then I met a lot of other women. I mean, I had a discussion with, with Paola Dazzan another researcher and professor at King's, and you can read a blog that I wrote a couple of years ago. And Paola, is very, the way I see her is she's very tough. She's a very strong woman. Also, that is very inspirational, the way that you- you have to be strong and go and get what you want. Also, when nobody, in particular, when nobody gives it to you.

[00:13:52] Carolina: Yes. If you don't ask, you don't get. Right?

[00:13:55] **Etta:** Yeah, yeah. I think that probably again, in that discussion with Paola, there is a bit this stereotype that sometimes

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probably women fall in themselves, that a woman is supposed to be all nice and gentle and nurturing and never there too much. So, when-when instead we- we start to negotiate to- to ask things or in a more assertive way, this might be interpreted as, something that is not right, because it doesn't fit in the stereotype...

[00:14:33] **Carolina:** mm-hmm

[00:14:34] **Etta:** ...but actually, it's not the case.

[00:14:37] **Juliette:** So what you're saying right, is that even in academia, and especially I think in, this field where I think we can't really deny it well, we have, I think we're lucky that we- we have a lot of women who can be good role models for us, I think the higher up you go, the more men you find and the less women. And I think even if there's this strand of like, you know, encouraging women to be more assertive to not be afraid to be strong, there is a little bit, isn't there? This- this thing that you become a b\*\*\* if you're a little bit too assertive.

[00:15:13] Juliette & Etta: [Juliette & Etta laugh]

[00:15:14] **Etta:** But you know...

[00:15:15] Juliette: It's nice if you're a b\*\*\*\*.

[00:15:17] **Etta:** But the nerd concept, until you realize that you are a strong person and it's alright.

I mean, I found myself in the past struggling with this aspect of myself of saying things very directly and the, sorry, asking myself why I

couldn't be more kind, more quiet, more patient. And I wonder, was I trying to fit in that stereotype or to-to imitate a lot of other women around myself?

I mean, the truth is, I'm not that person, I mean, I get upset, I am very direct, I speak very honestly, and that's fine. I mean, I think I can lead. I don't think there's anything wrong with that, in acknowledging that.

[00:16:14] **Juliette:** So how did you come to kind of accept that? Because I think particularly maybe you'll put a bit more input into that, but when you compare the Italian culture and the-the British culture we're in on a daily basis, the perception of what is direct and indirect, which is socially accepted, is it can be quite different.

[00:16:37] Carolina: Mm-hmm-mm-hmm.

[00:16:38] **Etta:** Yeah, I mean there are these opinions that are very popular and are one of the most, I mean that I've heard the most, that, yeah, Italians are more direct, while, British people might be, might not talk to your face or tell you things very directly, you know, and they would never be direct, but always be very formal.

I'm not able to tell you if that's true or not in my experience, because I have British friends and I have a British partner who is the least ambiguous person that I know.

[00:17:13] Carolina & Juliette: [Carolina & Juliette laugh]

[00:17:14] **Juliette:** That's amazing.

[00:17:15] **Etta:** That is able to tell me exactly how things are and instead, I found ambiguity in Italians. [Etta laughs] Some kind of mental, how can we say, structures, and a lot of complications that might come also from- from our cultures in terms of being afraid of judgment, being afraid of the appearance. Of course, the Italian culture as a lot of other advantages, first of all, using gestures to express themselves because it's always very- very amusing to see.

But I would say yes, I cannot give a clear definition of the true cultures. I- I have enjoyed both in my life. I think one has added to the other, probably to the other one. Yeah.

[00:18:03] **Carolina:** I think going back to the conversation we were having about women reclaiming their-their power or reclaiming their space in- in conversations, in spaces, in organizations, I think sometimes we fall into one of two stereotypes.

We're either the, the little lamb, you know, so sweet, so nice, people-pleaser. *'I'll care for everyone. I'll make everyone coffee. I'll-I'll take the minutes for this meeting'*. Or. Or you end up thinking, *'okay, now this has to change, and I need to be very assertive. I need to be very firm'*. And you almost try to mirror the behaviour of very assertive men, which is also not true to yourself.

You don't need to become a mirror of someone whose behaviour youyou don't agree with to succeed. I think it's also going back to feeling comfortable with who you are and there will be softness and there will be kindness and tenderness inside you, but you can also harness the power and the assertiveness when the situation and the person requests you to. You don't need to be, you know, like tough the whole time.

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[00:19:07] Etta: Yeah, I agree. I mean, I... I think that every kind of

behaviour that would mean to force to be something that is not natural

wouldn't be successful in the longer term or would be anyway very

painful. So, I think it's just a matter of realizing if a situation is making

you feel in a certain way and acknowledging that there are different

options of how you can react to that situation. So, if a situation makes

you feel that you can ask more or that you can be more assertive then

you can go for it and on the other side instead if a situation makes you

feel like kindness and be a "lamb" is the appropriate thing is fine. I

mean, forcing reactions that are not natural, that don't belong to us, I

think yes, that's what is more painful for us.

[00:20:03] Carolina: I think it's a very individual journey for every

woman...

[00:20:06] **Etta:** Yeah.

[00:20:07] Carolina: ...to understand where they are in the-in the

spectrum, let's say if there was a spectrum, and really learning how to

react appropriately. For me, for instance, I have a very masculine

energy. 'Let's do this'. You know, 'it's not perfect, but let's carry on'.

'Fake it until you make it'. 'Be confident'. That's-that's very much the

way I operate, and sometimes I need to remind myself that being soft

and asking for help and not being able to do everything is fine too.

[00:20:34] Etta: Also, that to allow to be-to be imperfect, not to

demand much.

[00:20:39] **Carolina:** Yeah.

[00:20:40] **Etta:** At the same time...

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[00:20:40] Juliette: I think it is right, like down the line about finding the right spot for you so that you can be assertive when you need to be assertive but that it's in a range that you feel comfortable with, because I know, for example, I- I mean, I'm somebody who I wear my heart on my sleeve. I don't always sugar-coat things when, I need to be direct, or it's not sugar-coated enough. And I know for me it's-it's fine, I- I kind of am able to find my space within that without, of course, like completely offending people, but it's not what's going to work for everybody. But I think it's tough sometimes to get there. Like I see sometimes, you know, young students who come to the lab and you just want to like, you know, empower them. Just be like, 'speak, it's okay!'.

Okay! Back on track. So, one thing, that we wanted to know is what is the one thing that you've learned from your research or from, your clinical practice that you wish people knew about mental health?

[00:21:57] **Etta:** That there is nothing to be-to be afraid of. What I notice is that there is a bit of fear around- of having a mental health problem, or a lot of stigmas, needless to say. But actually, I mean, those who suffer with a mental health problem can recover. I mean, there are a lot of medications, a lot of therapies, a lot of interventions that can help. And so, I would say don't be scared or don't be afraid if a friend of yours, a relative of yours has a mental health crisis, has a breakdown because these things can be absolutely addressed and there is a lot of help that is available. So, yeah; not to be afraid of this, but they are exactly like all the other medical disorders.

[00:22:49] **Carolina:** Thank you, Etta. That's really great. I think a lot of people will need to- to hear that they need that reassurance. I think all of us included.

[00:22:57] **Etta:** Yeah.

[00:22:58] Juliette: Yeah. I mean, it's a good general reminder.

[00:23:02] **Carolina:** Now we're going to change into serious to-to very serious questions. Very, very serious. So quickly.

[00:23:11] **Etta:** Mm-hmm.

[00:23:11] **Carolina:** Don't think too much about this. Who is your science celebrity crush and why?

[00:23:16] **Etta:** It's Brian May. It would've been that. I think everybody knows Brian May, but anyway, he's the guitarist of *Queen*. And he has a PhD in Astrophysics, and he's my favourite scientist because he associates his passion for science with his passion for music, for art.

So, this communication, again, between the two things make you understand that you need a bit of one to do the other. You need a bit of creativity and all that, passion, a bit of craziness. Also, when you do science, and you can use the rationality and the logic also in art. I mean, the two things don't exclude each other. And I love how we, it represents both things in his person.

[00:24:07] **Juliette:** Definitely does if- if all of us could do it just as well.

[00:24:15] Etta: Yeah. Yeah. I would dream of a career like Brian May.

[00:24:19] Carolina: I think you bring a very interesting point is that you have to be very experimental and very creative when you're a scientist and the same applies for music. And another thing, I think scientists, researchers, and- and clinicians, psychiatrists in this group included, we are very... we live a lot in our heads. We're very rational, very intellectual, and sometimes we need to mix things up with a bit of art, a bit of fairness, unruliness to really get- get our... get out of our minds into our bodies and into what's happening in the world.

[00:24:52] **Etta:** Yeah. Be a bit of unpredictable and go to a different direction from what is the most obvious.

[00:24:58] **Carolina:** Is there anything else that you'd like to tell our listeners, or should we let you have a nice evening and a nice weekend?

[00:25:06] **Etta:** Yes. I think I've talked even too much. I mean, our listeners might- might have had enough or yes.

[00:25:13] **Carolina:** It's never enough with you, Etta. We wish we had two hours to chat to you.

[00:25:18] **Etta:** [Etta laughs]

[00:25:19] Juliette: Maybe a future episode. Who knows?

[00:25:22] **Etta:** Yeah.

But yeah, no, it was very nice to have this conversation. It felt like a beer at the pub.

[00:25:29] **Carolina:** We told you!

[00:25:29] **Juliette:** Oh, thank you.

[00:25:30] Carolina: We told you.

[00:25:32] **Etta:** Really, really enjoyed it.

[00:25:33] Carolina: Thank you so much. We really enjoyed having you too.

[00:25:42] Carolina, Juliette & Etta: [say their goodbyes]

[00:25:49] **Melisa:** Hey everyone, it's Melisa. This episode of *At the Back of Your Mind* was recorded on 16th July 2021, featuring our hosts, Juliette and Carolina with special guest, Dr Etta Nettis. You can find Etta and more about her work over on *Twitter* @EttaNettis.

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Hope you enjoyed this episode as much as we did recording it, thank you for listening, and we'll see you next time.