AT: Welcome to the Infinite Women podcast. I'm your host, Allison Tyra, and today I'm joined by Morgan Gilbert, a communications officer with CSIRO, to discuss women in medicine in the ancient world. And just as a disclaimer, there will definitely be women we've left out because there are just so many that are mentioned in passing, but about whom we don't know very much, or we just missed when we were researching this episode, so it is not comprehensive, but we'll do our best. So the earliest documented women physicians I'm aware of were in ancient Egypt, thousands of years before the common era.

MG: Yeah, absolutely. So the first recorded women physician, who was actually possibly the first woman scientist, was Merit-Ptah, and she was an Egyptian living in the 28th century BCE, who was the Royal Court's chief doctor. And even before that, there's also evidence that suggests a woman ran a medical school at the Temple of Neath in Saïs, around 3000 BCE. Her name has unfortunately been lost to history. Even among the religious pantheon, two of the four deities most commonly associated with healing were females, so that's Sekhmet and Serket. There's also Peseshet, who was known as the lady overseer of female physicians, around 2500 BCE. She was also referred to as the king's associate in inscriptions from her stela at Giza. And then there's Homer's Odyssey, who mentions Polydamna, wife of Thon, a woman of Egypt, who gives Helen of Turi a drug to banish sorrow and ill humour. And that's circa 12th century BCE. So a lot of things going on very, very far back.

AT: Yeah, and it is important to remember that we have so little documentation from the early periods that we're talking about. So just the fact that any of this exists is actually really amazing.

MG: Yeah, absolutely. All of this is pretty much prehistory. So before there were, there were written records, some of it even. So it's great that we have even some evidence of what was going on back then.

AT: And a lot of it is on, as you mentioned, the stela at Giza. So we're talking about tombs and things that were inscribed in stone. And obviously that's, you have to be pretty important to warrant that kind of treatment. But interestingly, there are several Egyptian queens that we have records of them being associated with medicine.

MG: Yeah, so there were multiple Egyptian queens, actually, who were associated with medicine. So there was Hatshepsut. She lived around 1479 to 1458 BCE, and she founded medical schools and encouraged women to study medicine. Tiye and Nefertiti may have also promoted this too. And then Hatshepsut also promoted a botanical expedition to search for medicinal plants.
Then there's also Cleopatra VII. And she reputedly wrote a book on medicine, though she may have simply sponsored its creation. And a later, and less well known, Cleopatra wrote a book on obstetrics in the first century CE that was routinely consulted by doctors, including the famed Roman physician Galen. And it's likely that history has probably confused these two women.

AT: When we're talking about the physician Galen, he is going to come up a couple times, and

it is one of those situations where we don't necessarily have Cleopatra's book on obstetrics. But we have a record that someone else wrote that it existed. And so it's that sort of like tenuous situation that we often find, “Okay, here is a mention of someone, and that's all we know about them,” which is both tantalizing and incredibly frustrating.

MG: Absolutely. We're working with very small pieces of evidence and trying to fit them together and see what it was like for women in medicine in the ancient world. So it's exciting for your right, but also very frustrating.

AT: And of course, on the Greek side, there were plenty of Greek women practicing medicine as well, largely in the obstetrics and gynecology fields.

MG: Yeah, so there's a famous story from Greece that Agnodice wished to become a doctor in Athens, but this was forbidden. And women practicing medicine in Athens in the 4th century BC actually seemed to have faced the death penalty. But refusing to give up, she traveled to Alexandria, where women were routinely allowed in the medical profession. And then she had received her training. She returned to Athens to practice, but she did so disguised as a man. And when she was found to be a woman pretending to be a doctor, she was brought to trial charged with a capital crime. But, and this is where the story gets really cool, she was actually saved by her female patients who stormed the proceedings and shamed the prosecuting males into releasing her and even later into repealing the law, which I think is just a fantastic story. In the Greek world, too, there's in the 1st century BCE, Aspasia. And she was a physician who rose to fame as a midwife and gynecologist, including early work on techniques to induce abortions, and actually the surgical management of an early miscarriage. So she introduced her own surgical techniques for uterine hemorrhoids, which were common and painful, as well as varicoceles and hydroceles, both of which are actually quite similar to recent and modern methods. Aspasia's work influenced physicians and surgeons of the Byzantine period, including Aetius of Amida, and Paul of Aegina. And she was highly regarded by fellow physicians of her age, with Aetius considering her as a medical genius, and at least equivalent to the best male surgeons of her time. She would advise her pregnant patients to avoid chariot rides, violent exercise, and avoid spicy foods in order to reduce the chances of an unwanted abortion. And she worked on preventative medicine with pregnant women.

AT: It is interesting when we're talking about what she was doing is still considered like best practice or very similar to best practice. But not everyone was as effective, shall we say, in their practice.

MG: Certainly there were a couple of people whose methods weren't quite effective. And definitely that seems strange to us today. So, Laïs of Corinth, she was a Greek physician and midwife, and she was known for her disagreements with Elephantis, and for Pliny the elder's skepticism about the efficacy of her medicine. She and Elephantis allegedly disagreed about fertility, menstruation, abortifacients, and the use of several medicinal plants, including myrtle and cabbage root. Pliny also described her treatment for rabies and fevers, which involved a

silver bracelet containing wool from a black ram. But at least it's not leeches, I guess. Maybe if you could fix some, modern problems with a silver bracelet, that would be pretty cool, I reckon. But unfortunately, you're probably not super effective for those women, those people.

AT: And when we're talking about her disagreements with Elephantis, that's actually another female physician.

MG: Yeah, she was. So, Elephantis was a physician, and she was also a poet. In the classical world, she was renowned as the author of a notorious sex manual. But it has been suggested that the manual was written by a courtesan of the same name, some another case where we've got two people with the same name in history, and it can be hard to separate them. Our sources sometimes cannot differentiate between the two, which makes it a little bit tricky. And also none of Elephantis's works have survived, but they are referenced in other ancient texts. And she seems to have written a manual about cosmetics and another about abortives.
Sotira, who was around in the first century BCE, was an obstetrix, or an ancient Greek obstetrician, who was also mentioned by Pliny the Elder as an author of treatises on postpartum fever and menstruation. There was also Olympias of Thebes, who was a Greek midwife who lived in the first century as well. She was also a writer, and she was distinguished amongst the ancient Greeks for her medical writings and for her medical ability. According to Pliny the Elder, Olympias said that mallows with goose grease caused abortion and that she could cure a type of barrenness by bull's gall, serpents' fat, copper rust and honey rubbed on the parts before intercourse.

AT: I mean, I don't know that that's not true.

MG: Yeah, we don't know it didn't work. So I can't, I don't know.

AT: I'm not going to test it. Like we do not recommend any of these things.

MG: Do not try this at home!

AT: This is my disclaimer - one of these are endorsed by either me or CSIRO or anyone.

MG: Absolutely not. Also the techniques such as by Metrodora - probably wouldn't try these at home either. So she was a female physician who was an extremely competent gynecologist, midwife and surgeon. She lived in the second century A.D. and she wrote on the diseases and cures of women. And she advised to apply potato porridge mixed with goose fat in the form of pesos or pessary. Much of her work and concepts about female body are still consistent with modern medicine. So probably not that pesos part, but examinations done with speculums, sexually transmitted infection and other medical concepts have become part of modern OB-GYN techniques.

AT: And just because I don't think I was familiar with the term pessary until relatively recently,

because it's not really a term we use anymore, but this is something that you would stick up the vagina.

MG: Yes, so probably again, not something that is around in modern medicine, I would have to say.

AT: Yeah, we again, we are not telling anyone to put potato anything up there. And so it's not surprising that, you know, when we hear about women, particularly women who were socially acceptable enough for men like Pliny or Galen to be writing about, it's not surprising that a lot of them were working specifically in women's reproductive health. But, you know, we should note, not all of these women were working in obstetrics and gynecology fields.

MG: There's definitely evidence of women who were working much more broadly in medicine and looking at different aspects. So going right back to the 12th century BCE, Agamede was, according to Homer, a Greek physician acquainted with the healing powers of all the plants that grow upon the earth. That would be pretty cool.
There's also Salpe, who was described by Pliny the Elder as an obstetrix, but the remedies that he's attributed to her were actually for more general things like sunburn, stiff or numbed limbs and dog bites.

AT: Oh, yes, that famous pregnancy problem, dog bites.

MG: Dog bites, yes. And we're also once again relying on Pliny regarding the naming of the plant genus Artemisia. He says it was named after Queen Artemisia II of Caria, who was also a botanist and medical researcher. She was also a naval strategist, military commander, and ruler as satrap of Caria. I wish I was that cool. I don't know about you, but to be all of those things. Very, very impressive.

AT: I mean, it also sounds a bit exhausting. Like it just seems like a lot. I love the phrase “I don't want to I don't want to lean in. I want to lie down,” which I think is an Ali Wong quote.

MG: Yeah, absolutely. And so there was another woman, the physician, Glycon, honored his wife Panthea, who was also a physician, with the inscription, “you raised high, our common fame in healing. Though you were a woman you were not behind me in skill.” Which is, you know, very lovely. You'd hope that it’d be expected, that people acknowledge the women's skills, but a very lovely inscription
In Plato's On the Republic in ancient Greece, he argues that like jobs that were like for the good of the state should actually be assigned to people based on their aptitude, not on anything else. And so he actually says that a man skilled in medicine and a woman skilled in medicine in respect to their minds have the same nature. And it seems that he was actually saying this in a way to support his point. And he was saying that this actually is so common and it is happening in the ancient Greek world. And therefore, we should apply it to other jobs. So it is interesting that we even have that example of the fact that there were female physicians around and that

people accepted that as part of the ancient life. And it's unfortunate we don't have more evidence directly about that area.

AT: My understanding of especially when it comes to like archaeology, where we're looking at things that are just so far back, there are a lot of things that are referenced in passing but are assumed to be common knowledge for the people that it was written for in that time. But because we don't have that knowledge, it just makes no sense. And it's again, those little like tantalizing tidbits where they just casually reference something that everyone knows about. So we don't have to explicitly explain what we're talking about. But then for a modern audience and scholars, it's just, “what do you mean by that?!?”

MG: Yeah, “what are you talking about?” Yeah, you find a lot in ancient texts. It goes, yeah, so this person who everyone knows, or everyone knows of this person's achievements. And you read it and you go, “what were their achievements?” We don't know, ancient people did very much know all of these things. And it's just, we wish we knew all those things that they assumed we would know.

AT: Well, it's like when I first came to Australia, you know, if you mention the First Fleet, every Australian knows that, you know, that's when the British first landed here. And as someone who was not Australian, I obviously had no context for that. And so even today, we get it in like intercultural contexts as well.

MG: In the future, if people looking back and they see like our recipes and stuff, and it says six eggs, but no specifications that they're chicken eggs. And so maybe in a time where, you know, people using eggs of different animals, I just, that's what I think about sometimes in that example, they wouldn't know those basic things, perhaps about us in our lives. And we don't know those things about the ancient worlds. So we're relying on what evidence we do have and can find and trying to piece it together.

AT: Exactly. And so if we are assuming from an archaeological lens that female physicians were not uncommon, they were perhaps clearly not as common as the men.

MG: Oh, absolutely.

AT: I was seeing comments like, “oh, she was at least as good as the best men.” And you know, “although you were a woman, you were not behind me in skill.” So there's still a bit of that. But if we're assuming that they are relatively common, it's not necessarily something that everybody has to say all the time.

MG: Yeah. And I think that's partly why we don't, yeah, we don't have much evidence on it. So it's good to know that they did exist. And they, yeah, probably weren't common. But yeah, it is nice to think that perhaps in the ancient world, they were, as time progressed, more open to it.
AT: And of course, then there were the Romans, because I feel like we can't talk about the

Greeks without then getting into the Romans.

MG: Oh, absolutely. There are inscriptions that reference several women who were enslaved healers, such as Secunda, who was midwife slave of Statilia, the elder, and Melitine, who was physician slave of Appolius, and Minucia Asste, a freed woman of a Roman citizen woman position. So that suggests that she was enslaved and later freed. And yet it seems that though the position may not have been high paying, so women could probably not become wealthy by practicing medicine, it may have been enough to support themselves and even perhaps buy their freedom if they were a slave.

AT: You do see, not necessarily the freedom aspect, but the skilled slave in American, you know, pre-civil war history as well, where it was just a question of if a female slave had healing skills, if they could mix up selves and tonics and that sort of thing, if they could act as a midwife, that was just a very valuable skill. And so, you know, there apparently was an incentive to a certain degree for slave owners to encourage some of their slaves to garner those skills, because not only was it helpful on their own plantation or homestead, but then they could also rent them out essentially. And so you've got the slave owner gaining more income from that slave's abilities. And then we even had women apparently performing surgery, which I know we've mentioned previously, but the idea of C-sections, which of course are at least apocryphally named for Julius Caesar, makes me very cringy. It disturbs me.

MG: Yes, no, I kind of agree with that, but no, Terentia Prima, who was around in the first or second century CE, was apparently capable of performing C-sections. So I can't imagine performing a surgery of that kind in that time. I can't even imagine what it would have been like, but apparently there were not only men, but women who were forming them. And in the Roman world, we have a couple of more. So we have Aemilia Hilaria, she was a Gallo-Roman physician, and she practiced medicine. And she also wrote books on gynecology and obstetrics. And we know about her because she's actually included in her nephew's poetry. So, Ausonius's poem about his aunt described her as a dedicated virgin who rejected marriage in order to further her career. He described her as trained in the medical arts, as well as any man. Her nephew called her an honest and skilled physician who also assisted her physician brother in his own studies.

AT: It is interesting to see, you know, a woman rejecting marriage in order to be a, you know, ancient Roman career gal. From what I've seen, there is a lot of women whose career just ends when they get married and have kids. And so it is sort of fascinating to see even as early as, you know, the 300 CE that at least some women were able to say, “no, no, I'm just going to go do this instead.”

MG: Yeah, the fact that she could perhaps have done this fulltime and throughout her whole life is really quite wonderful.

AT: And then we've got Galen coming up again. He mentioned a bunch of women, which is

really great. So one of those was Favilla, a Roman physician who had developed useful remedies for diarrhea and the coughing up of blood.

MGL I would hate to know what the remedies were that she developed. Can't imagine that they would have been pretty.

AT: The three slave women that we had mentioned earlier, we know about all of them because of inscriptions. But there's also an interesting one called the Restituta Inscription.

MG: It's a really unique inscription, and it was dedicated by a woman, so Restituta, to her professor and patron, Claudius Alcimus, who was also a doctor of Caesar. It is the only excavated epigraph that documents the relationship between a female physician and her male teacher. And so just that content alone makes the Restituta inscription significant, the understanding, the role played by women in the medical profession of first century CE Rome. And so the inscription, and it was uncovered in Rome and dated to the first century CE, reads "For Tiberius Claudius Alcimus, Doctor of Caesar. Made by Restituta, for her patron and professor, good and worthy, he lived 82 years!" Very impressive in the ancient world.

AT: And then there was Antiochis of Tlos. So she was in the first century, either BCE or CE, they're not sure. And interestingly, she studied under her dad, which is something I've seen in other fields as well, like you might have a painter who learned to paint because her father was a painter. And so she apprenticed under her dad, Diodotus of Tlos

MG: Antiochus apprenticed under her dad, and she actually gained notoriety throughout the Lycian region for her medical practice. And in about, so I think it was 1892, an Austrian expedition found a pedestal in Lycia. And the statue was gone, but an inscription remained on the ruins, which date back to the time of Antiochis. The inscription reads, "Antiochus of Tlos, daughter of Diodetus, commended by the council and the people of Tlos for her experience in the art, has set up this statue of herself." Respect, setting up a statue of yourself, respect. And so the language of the inscription may mean that Antiochus held the official position of city position. These positions were hired by a city council, granted a salary, and held responsibility for some public duties. And the fact that she set the statue up herself means that she had ample funds and wanted to publicize her accomplishments, possibly as a physical note on the culture change associated with a successful female doctor. But the interesting thing is her reputation extended across the world and well past her own lifetime. Important medical writers and physicians referenced her as an authority for her work and treatments. The disease authority Asclepiades of Pharkmakion cited some of her remedies and Heraclides of Tarentum dedicated one of his books on preparing and testing drugs to her. They then credit her with healing mixtures for spleen diseases, dropsy, sciatica, and arthritis. And in these last records, there is evidence that Antiochus had people working directly for her.

AT: So she was a boss is what we're saying.

MG: Basically, she was a boss. She was very successful, well respected, seems like, and set up a statue of herself. So what more could you want really?

AT: Yeah, I now want a statue of myself, but I don't, I don't feel like I've earned it.

MG: I reckon you should.

AT: Just out in the front yard. Like a little garden gnome of myself.

MG: Exactly. Just like a little one, doesn't have to be a big one.

AT: It’s what all the cool kids are doing.

MG: Absolutely.

AT: And I wasn't able to find much about women physicians in China. So I don't know how much of that is like a language barrier issue of what's available in English, but even among male Chinese physicians, the earliest that I was able to find a record of was Bian Que, who lived in the 4th century BCE and is recorded as treating, quote, diseases under the skirt belt or, you know, a gynecologist.

MG: Yeah. And then so we've also got during the Han dynasty, which is 206 BCE to CE about 220. And a gynecologist was called a breast doctor or a women's doctor. And the earliest recorded gynecologist under that name were two doctors called Yi Xu, and Chun Yuyan, who treated one of the empresses during the Western Han dynasty.
And Chun Yuyan was a Chinese court official. She was the obstetrician and gynecologist of empress Xu Pingjun and has been referred to as perhaps the first woman of her profession in China.
During the second century BCE, Yi Xu was a physician during the reign of Emperor Wu of Han. And then we've got Bao Gu, who was a Taoist physician in 4th century China during the Eastern Jin dynasty.

AT: And as we're moving into the common era, so like anything post year zero, the Byzantines also had multiple noted women physicians as well.

MG: So we have Leoparda, who was around in about the fourth century. And she was a gynecologist who served in the court of Gratian, who the male court physician wrote about in a book for women physicians. He dedicated that book to her and two other women physicians, Salvina and Victoria. So yeah, we have a man writing a book for women physicians. Interesting.

AT: At least he mentions and acknowledges that women physicians exist, but it's so annoying that the only record we have of these three women is that this guy mentions them in passing.

MG: Yeah, once again, we have back to that problem and it's very frustrating.

AT: And I have to note, as I was looking at these women, I kept seeing a lot of historicity debate where you've basically got usually white male scholars claiming that this woman or that woman didn't actually exist. And my impression is that there does seem to be more of this with women than with men, like you'll have scholars who will bend over backwards to insist that the Iliad is historical fact, but then claim the Amazons didn't exist even though they appear in the Iliad. And obviously we have evidence of Scythian women warriors. So I don't know how much of the claiming that someone like Agnodice was apocryphal or a legend or whatever, how much of that is just sexism versus what is actually supported by the evidence. And I don't have a PhD, so I can't really judge that for myself, but I suspect it leans towards sexism. But that's also my personal bias. I just assume sexism.

MG: Yeah, I also do not have a PhD, but it is clear when you're looking through scholarly works about women in the ancient world, obviously for a long time history was mainly written by men. And even a couple hundred years ago, with some of the things that we're working with now, they're also written by men and men received in education and we're writing about these things. And so over time, it is probably likely whether maybe even unconsciously that these women in history have been left behind and forgotten. Whether that was intentional or not, we don't know.

AT: The, you know, men write history aspect is born out just in the conversation we've been having. So you've got, you know, the male physician from the Byzantines, you've got Homer, you've got Pliny, the people that we are referencing are all the dudes who did mention women. We've mentioned the Roman physician, Galen, who used Cleopatra, the physician's obstetrics text. And he also praised women like Margaretta, who held a prestigious position as an army surgeon, and Origenia, whose remedies he praised. But even then, I think you mentioned before we started recording, that you found some sources saying that all these women probably didn't exist, even though we've got him saying they did.

MG: Yeah, absolutely. If you go through the scholarly works and you go through all the source material, there is definitely a mix as people who say, no, these women didn't exist. And the people who say they they did, and they both have evidence, and it's, it's one of those cases where it is hard to weigh it up and figure out whether they did or not. But it is frustrating that a lot of people tend to automatically err on the side of they didn't exist. Whereas there are other cases throughout history where people have erred on the side of, oh, they must exist, or these, yeah, these powerful men definitely existed. And yeah, they're role models and those kinds of things. And a lot of these things we don't know for sure, because we're relying on, in some cases, not even second hand, but like third hand or even resources from later. And we don't know how much of this was true or not. But at least we know that there definitely seems to have been an element of truth to this. We know that there were women physicians in the ancient world. And that probably wasn't always allowed or accepted, but they definitely did exist.

AT: And if it's a question of some people say they probably did, and some people say they

probably didn't exist, I'm just going to go ahead and give them the benefit of the doubt and go with the probably did exist crowd. But let's skip ahead a few thousand years. And you're doing some really interesting work with CSIRO in the medical space as well. And particularly carrying on this lovely legacy of women helping other women with obstetrics and gynecology.

MG: I'm with the Australian eHealth Research Centre. So what we're really doing there is looking at how can we use digital technologies to improve health and health care for everyone in Australia. And one of our groups are focusing on an app that they developed called Mother. And similar to some of these lovely women we've looked at who focused on obstetrics and gynecology, the Mother app is for pregnant women, and it's to help them manage gestational diabetes, which affect around one in seven pregnant women in Australia, and can cause quite a few birth complications and increase your risk. And so they've developed this app to try and help women manage their condition and be healthier and have a better quality of life throughout their pregnancy. Professionals at the Mater Mothers Hospital in Brisbane, they found that traditional care for gestational diabetes was a major burden on women because having to measure your blood glucose four or five times a day, write them down manually, go to a physical doctor's appointment about once a week. That's a lot of time out of your day for anyone and for perhaps women who are caring for children or having other care responsibilities as well as working or anything else in their life. It is a huge burden. And so that's why they worked with CSIRO to start developing the Mother app. And so CSIRO developed it and they've tested it. And so far the results have been really wonderful because the app allows women to automatically upload data from their glucometer to the Mother app and then that gets shared with their care team, their clinicians. And so they don't have to be writing things down manually. And depending on how their results look, it means they have to go into the hospital physically much less. So it's giving them time back into their day as well. So that's just one of the things that I love about the science that's going on at the moment at CSIRO and in the world. There's a word for it, someone coined the term femtech. So it's got a few different definitions, but it's technology to meet the specific health needs of women. And so this is one of those examples. We've got an app developed mainly by women and it's for a women's issue. And we're already seeing the effects that it's having on people's quality of life during their pregnancies. So that's what I really love about everything that's going on currently.

AT: Join us next time on the Infinite Women podcast and remember - well behaved women rarely make history.