



## **Anthrolactology Podcast**

Episode 1: Introducing Dr. EA Quinn

January 31, 2020

### **Episode summary**

Hello and welcome to the first episode of *Anthrolactology* – a podcast about lactation from an anthropological perspective! Today your hosts are Dr. Aunchalee Palmquist, Assistant Professor Maternal and Child Health, Carolina Global Breastfeeding Institute, University of North Carolina at Chapel Hill, and Dr. EA Quinn, Associate Professor of Anthropology, Washington University in St. Louis. This monthly podcast will consist of several segments on different topics – an interview with an anthropologist studying some aspect of lactation, a segment on new research in the broader world of lactation, a segment on new lactation technologies (such as pumps, milk testing kits, lactation supplements, etc.), and a segment we are calling “We tried this at home” where we or others talk about some aspect of lactation as a lived experience.

In this episode, we introduce EA’s research with a community of ethnic Tibetans living in Nepal and talk about how living in a high-altitude environment influences milk composition and some reasons why high-altitude populations may produce milk with a higher fat content. We also discuss at home breast milk composition testing kits and EA outlines future plans to actually compare them to lab analyses.

At the end of the transcript you’ll find links to blog posts and other resources mentioned in the podcast!

### **TRANSCRIPT**

**Aunchalee:** Alright. I think we’re recording. Yep! GREAT. Yeah. Okay.

**EA:** Okay. I think we're good.

**Aunchalee:** Okay. Do you want me to repeat the question? *[laugh]*

**EA:** Sure, yes. Let's do this. *[laugh]*

***[Music] This is Anthrolactology, a podcast about breastfeeding, science, and society.***

**Aunchalee:** Hi everyone! Welcome to our first episode of *Anthrolactology*, the podcast.

For these first few episodes, we're gonna introduce ourselves and tell you a little bit about our work. And, uh, with me today is Dr. EA Quinn. Hi EA!

**EA:** Hi Aun!

**Aunchalee:** How are you?

**EA:** I'm doing great!

**Aunchalee:** Are you excited to be recording our first episode?

**EA:** I am! I'm really excited about doing this project! For those of you that I don't know us, this is our third project together. We've edited a book, we've done some symposiums, uh, we run a blog, Anthrolactology, and so now kind of getting into podcasting together and really taking this as an opportunity to talk about, well, some of the ways in which anthropology is informing research into lactation.

So, our format will be very conversational, a lot of new things we think are cool, and having a good time talking about lactation.

**Aunchalee:** So, today I'm going to interview you. Okay?

**EA:** Oh, I should probably tell people who I am first.

**Aunchalee:** Well, well yeah, tell us who you are. *[laughing]*

**EA:** My name is EA Quinn or Elizabeth Quinn. I am Associate Professor of Anthropology at Washington university in St. Louis and I have been studying like for, oh god, I think like 16, 16 years now? For the majority of my adult life.

And, most notably, I now have a six-month-old, so I have a whole new perspective on lactation, between the research and now the applied living lactation every day!

**Aunchalee:** That's awesome.

**EA:** So, I am broadly trained as a human biologist. That means my background is not only in what we might think of as more traditional anthropology methods, such as interviews, ethnography, working with communities, but I'm also trained as a bench scientist, so I run hormonal assays, I have training in statistics and endocrinology. I have a master's in public health with an emphasis on biostatistics.

I do maternal and child work, but kind of at my core, I'm a lab person. I collect breast milk samples from moms living in communities around the world, and I analyze them for hormones, immune factors, nutrients, macronutrients, and use those to ask questions about maternal and child health, child growth, community health, and then bigger evolutionary questions about human adaptation and the roles in which a milk has played in human adaptation.

**Aunchalee:** What was your first research project that you did that was focused on, or that allowed you to take a look at human milk?

**EA:** Oh kind of, how did I get to human milk? Actually, started with mummy's, not mommy's, but mummies.

*[both laughing]*

So, as an undergrad, my senior thesis honors thesis project was on natural desert mummies from the Sudan in an area that was flooded during the construction of the Aswan dam. It was rescue archaeology. They dug up two huge cemeteries of mummies that were a couple thousand years old and represented periods of different political stability in this region of the Sudan, what was then Nubia. And, these mummies, at the time we thought they were a temporal sequence. And, that you had these two cemeteries, and one was older, and one was newer, and we can infer things from that. And so, I did a stable isotope analysis. We removed about a half an inch of the rib from a couple hundred mummies from kids, and did stable isotope analysis to reconstruct weaning age, so, when the kids were actually weaned.

And, I learned a lot of things, um, lemon juice gets the smell of mummies out of your clothes! And that I really wanted to talk to living people that studying mummies was cool and interesting, and I applaud the people that do it, but it wasn't for me, it was not the type of research I wanted to do.

So, I was very fortunate, to then kind of transition to working with a graduate student as a research assistant. And, she was looking at endocrine development of babies using fecal and urine samples from diapers to look at how babies functionally developed from endocrinological perspective. She was looking at sex hormones and stress hormones and related. And I thought it was super cool, but that half the story was missing and that was the input from milk.

So, I decided at the, you know, ripe old age of 21 when we know everything that I was going to spend the rest of my career studying human milk.

And uh, my research has really focused on understanding milk from a life course perspective and as part of normal human adaptation.

**Aunchalee:** Can you give us like highlights about what is in milk that you're interested in, in terms of life course kinds of research or the research that you do? Like when you're looking at human milk, what is it that you're looking at?

**EA:** So human milk is amazing! There are thousands of known and unknown components of human milk. I mean, I feel like every year we're discovering more and more new things that we didn't know were in human milk, like STEM cells.

There are STEM cells that can differentiate into different tissues in human milk! How cool is that?

And, I feel like that's one of those things that like we should be shouting from the rooftops!! There's this amazing source of STEM cells, and we don't understand anything about it. And, I think that really is a good summary of human milk is that we don't understand nearly enough about it. And, every time we look at it, we discover

how living it is and how adaptive it is, how flexible it is in terms of changing its composition to respond to signals from the mother, signals from the infant.

You know, right now kind of being in the thick of breastfeeding myself, I spend a lot of time in mom groups online, and women are very aware that when you're sick, your milk composition changes and the immune factors in your milk increase to help prevent your child from either getting sick or help limit their illness.

We didn't know that five years ago! Like, how cool is that that your milk can literally respond to illness in either the mom or the kid and we don't understand fully how that works. If it's backwash into the breast or if it's just from kissing your baby, like how cool is it that we've got this plasticity and this flexibility in milk and what are we really going to discover about human milk the more we study it?

So, my research is primarily on metabolic hormones in milk, things like insulin, glucose, metabolic hormones adiponectin and leptin that are involved in, basically, regulating body composition and influencing things like appetite and growth and weight.

But, there's tons of other things to discover in milk. And, even when I'm like saying, 'Oh, you know, I'm interested in metabolic hormones in milk' - up until four, five years ago, we didn't think insulin was in human milk because the molecule is so big, it couldn't passively get into milk. It would have to be actively pumped into milk by body cells. And so, the assumption was it wasn't in milk until somebody tested it and was like, 'oh no, human milk is full of insulin!'

**Aunchalee:** Wow.

**EA:** And, just kind of how cool that is that the more we look at milk, the more we learn about these early signals that infants are getting from milk. And what those mean for growth and development.

**Aunchalee:** So, it's interesting that you talked about these metabolic hormones that you're sort of really interested in, and how they map to, like, body composition. And, I understand - because I'm a fan of your work, I think your work is amazing - part of the reason that you're interested in this is because you've done work in high altitude populations where body composition actually might be really important to understanding the survival of infants in those settings. I would love to hear more about this particular aspect of your research.

**EA:** Absolutely. So, I currently do my research with ethnic Tibetans living in the Himalayas. This is a population living in Nepal. They are ethnically Tibetan. They practice Buddhism and several of the communities actually are identified as Tibetan communities. These communities live across an altitude gradient from about 13,000 feet to about 8,000 feet. So, not all super high altitude. We usually generally use about 10,000 feet as a cutoff of high altitude. So, about half the communities are above 10,000 feet. All the communities are above 8,000 feet.

And, living in high altitude has a lot of challenges. The kind of first one that you may think of if you've ever been to Denver or Albuquerque or any other high city is that

there's not as much oxygen available with each breath. So, you get low level hypoxia, and that's just the clinical term for, for insufficient oxygen with each breath. And, hypoxia has been framed as this huge pressure on populations living at high altitude, that you're having to either breathe more or be more efficient at getting oxygen out of the air or have more red blood cells.

There's lots of different ways populations have solved this problem. I'm really interested in the ways in which human milk is contributing to kind of solving the problems of living at high altitude. Body composition is really important because when you live really high up on a mountain, not only is there less oxygen available with each breath, but it's cold and you're closer and you're exposed to more, um, UV radiation, your closer to a lot of pathogens. There's increased marginal, nutrition status. I mean, the growing seasons are shorter because of the cold; day length because of the mountains may vary so, right. You might have long periods in the shade, even though the sun's out you, it's not on your fields because it's the mountains. So, it's a very dynamic set of challenges.

And, for most mammalian species, you have to be pretty adapted to live with these sets of challenges. And, humans, we're so geographically widespread, it's really unique that we can live with these challenges and that we can thrive with these challenges.

I'm really interested in how our infants managed to not only live, but thrive at high altitude.

**Aunchalee:** I know that your work has a really strong community engagement component and you know, there's a lot of thoughtfulness and collaboration that informs the work that you do.

**EA:** I consider myself incredibly fortunate to be working with this high-altitude community. The specific group I work with is in the Nubri Valley. They are ethnic Tibetans, they practice Buddhism. This is an incredibly rural area. We work in about 12 villages. Infrastructure of the villages is rapidly changing. So, there's a road coming in, there's starting to be micro-hydroelectricity. So, the villages are starting to get electricity. We're starting to see regular health clinics. There's been a lot of change over just the last five years that I've been working there.

I was actually invited into the community both by the community and by my long-term collaborator Jeff Childs, who's a cultural anthropologist. He'd worked with the community since 1994 and spent 18 months actually living in Nubri in one of the villages and had very good community relationships. And, part of that was working with community members and local NGOs to identify what the community said were their needs and develop projects that address those needs.

And so, I was actually invited into the community through conversations he had with community members about how much they wanted to understand how to have healthy babies and how to reduce maternal and infant mortality, and to kind of better understand how their kids were growing.

And so that's really how I got involved with this community. There's been some phenomenal NGOs, community action Nepal and Nepal Seeds that had been very active in these communities and have done a lot of things. Like - Nepal seeds run regular, health trainings and with the research project. We've gotten really involved with the health trainings. and these are based on topics that community members identify as topics they're interested in. And as part of those health trainings, we also disseminate our findings and our results.

**EA:** We also hired college educated women from the community, women who'd gone out for education. And, these are women who have families living in the communities. So, we're investigating questions that are of interest to the community, we're also investigating questions that are of interest to my bigger questions about public health or evolution, adaptation, ecological challenges. And then we're tying these into community concerns and health messaging.

**Aunchalee:** Have you found that they're also interested in understanding what's in their milk? Is that something that they're, like, that makes sense to them? That they're really interested in learning about?

**EA:** So, yes. I mean, I think when we first got up there and we were like, 'Hey, we'd like to collect milk and here are the questions we're asking.' Everybody was kind of like, okay, why does that matter?

So, I think they kind of tolerated us the first round. And, then we came back with the community outreach and the educational programming that we had promised them. We presented the results and our big finding from the first survey round was that the fat in the mother's milk was elevated.

These women are producing incredibly high fat milk for humans. And our kind of working hypothesis is that it's an adaptation to the chronic cold stress and the energetic pressures experienced by women living at very high altitude. And it's actually helpful for the babies, because it gives the babies more calories to help with dealing with cold stress and to help them lay down body fat that is going to help survive in these kinds of more limited nutritional settings, dealing with these cold pressures, dealing with hypoxia.

And so, the women really liked that because it actually tied in with local animal knowledge that, you actually wanted like yaks and dzos, which are female yaks if you lived at higher altitude cause their milk was richer. Whereas if you lived at lower altitudes, you might want hybrids, or you might want true cows. So, we were actually able to use some of that language to kind of communicate the findings and talk about how their milk was perfect for their babies. It was meeting all of these needs.

Now we're starting to get into more things like immune factors and oligosaccharides and those are a little bit harder to explain, but often we're doing it in terms of talking about preventing infections and kind of dealing with the challenges that come in these ecologies.

**Aunchalee:** What was their response to you all presenting these findings that the milk looks different than the milk of mothers living in other kinds of environments? Like, were

they are like, 'Oh yeah, that makes sense?' Or was it like, 'oh, that's weird. Or interesting?'

**EA:** They were actually, they're really proud of their milk. And, um, we hear that from some of our partner NGOs that like, you know, they're they'll tell you about their milk and they're like bragging.

They're like, 'Oh, our milk has so much fat!'

And you know, when they're doing breastfeeding education through the partner NGOs, the women are like, 'Oh yeah, our milk is great! We know. She told us!' Yeah.

*[Interesting]*

And so that's really fun because there's been a lot of issues with formula companies coming into Nepal and really kind of undermining women's confidence in breastfeeding and lactation, particularly following the earthquake that happened a few years ago. And in our community, the women are like, 'let us tell you about how cool our milk is!'

So, the health messaging has been great!

**Aunchalee:** So, you mentioned that since becoming a mother it's changed how you approach your science and the kinds of questions that you have. Um, can you share a little bit more about that?

**EA:** Sure! So, you know, I, I've spent, as I said, about 16, 17 years of my life studying human lactation and breastfeeding, and I thought I had a pretty good handle on things. And then six months ago my son was born.

He, uh, he was born with a tongue tie and he had a suck swallow, breathe dysfunction, where he couldn't figure out how to do all three simultaneously.

So, we spent, ah, six weeks in occupational therapy. He lost a ton of weight. Like we're literally having to train this child how to suck and breathe at the same time. I had to do exclusive pumping for a while. We, you know, I, I think we saw nine or 10 different lactation consultants just trying to put all the pieces together...

*[Wow.]*

Um, I had, uh, kind of a traumatic delivery and lost a lot of blood. Had to have a blood transfusion, ended up with HELLP syndrome and had to have treatment for, basically damage to my liver, and take some medications that are known to inhibit milk supply. That are known to inhibit milk supply basically.

Even some of the hospital lactation consultants were like, 'you're probably not going to be able to successfully breastfeed.'

And I was like, 'watch me!'

So, I'm, you know, I am not an exclusive breastfeeder. My child has received donor milk from some phenomenal mothers who have donated their extra milk, many of them through a local mother's group. And that has been remarkable in allowing my child to be on about 95% breast milk through six months.

And, what this is kind of led me to is to understand that, yes, I've got a pretty good handle on the milk science. I haven't always been asking the right behavioral questions. And, really kind of understanding, particularly for mothers who have a lot of ecological and environmental constraints on lactation, how do they manage it?

You know, we've asked questions about the women we work with in Nubri. How do you manage breastfeeding? What do you do if you don't have a supply? We're working on those analyses now. And there's a lot of allonursing that would go on; relatives or neighbors, close friends would nurse a baby if a mother couldn't produce. And, there aren't some of the anxieties, as much, around adequate production, because it's so much more normalized.

And even the traditional health practitioners have ideas about how to deal with things like mastitis, how to deal with clogs, how to help women when they're struggling, and what local herbs should be taken and shouldn't be taken. So, there's a lot of this kind of knowledge that we've identified that the traditional healers, the *amjis* in Tibetan medicine are talking about.

And really kind of starting to understand that yes, women are concerned about adequately nourishing their infants and they've got strategies. And, you know, it's, it's been huge for me to really begin to grapple with how difficult this is. And, how much, you know, ideas about motherhood and behavior I had tied up in successfully breastfeeding, because it was such a priority to me because I had spent so much time.

You know, and I had these ideas that like I'd be able to do all these assays cause I'd have all this extra milk and I could develop all these new lab techniques with my extra milk, and now I don't have enough milk to, to feed my son every day. And I'm like, 'well, I'm not giving my lab any of my milk.'

*[both laughing]*

I will from time to time. And I have some colleagues who are also nursing and have plenty of milk and have generously offered milk. *[laughing]*

Um, but it's, it's also, you know, it's, it's one of those things to understand kind of anxieties. And you know, I have a friend that's making 45 ounces a day, and she's convinced she's an under supplier because her son eats that much.

And how kind of these things are both objective and subjective. All of these ways in which I just hadn't really thought about breastfeeding. Like I had thought about breastfeeding from the literature perspective, but the lived reality of breastfeeding and pumping has been so different.

**Aunchalee:** Yeah. *[laughing]*

**EA:** Right? I mean, I just said to you, okay, we got to wrap it up. I gotta go pump!

*[both laughing]*

**EA:** *[MUSIC]*

So, for our next segment, we're going to be talking about milk technologies. And this is kind of gonna vary from podcast to podcast. Sometimes we may talk about new pump technologies or new milk screening devices or kind of anything new that pops on the market focused at lactating mothers.

A lot of this is driven by the targeted Facebook ads that as a nursing mother I seem to get, because there's just so much new and cool stuff coming out that is really worth talking about and thinking about in an evolutionary perspective.

So Aunchalee's going to introduce our topic for today's discussion.

**Aunchalee:** There is a lot of interest, like commercial interest, around these direct to consumer kits where mothers can put droplets of their milk in and you know, get it, get some output on like what is in my milk.

I mean apropos to our discussion about fat in milk that is, you know, a metabolic hormones and those kinds of things.

I am very curious what you think about these tests that can tell mothers what's in their milk. What's your take on the utility and how useful that information is at an individual level?

**EA:** It's not.

**Aunchalee:** Is that the right question? *[laughing]*

**EA:** I think it is the right question, and I don't think that they're useful.

I mean, we're looking at population level. We aren't looking at an individual woman's milk and saying, "Oh, you only have, you know, 4.5 grams of fat per three ounces in your milk."

And those are kind of what those kits are doing. And we don't even know what that means.

**Aunchalee:** Why don't we know what that means?

**EA:**

Well, because milk is so variable across the day! We don't even understand the daily variation in a lot of these hormones and metabolic markers. We kind of have an idea of fat from studies that have collected milk samples across a day. And, what we found from those studies, and most of them are old, they're from the 90s. What we have found in those studies and when we have, one of the authors from our book, Elizabeth

Miller on in a couple of months, she's recently put out a paper kind of thinking about some of this from an anthropological perspective and being a little bit more critical.

But what is the single value of milk? It's so biased from how you sample it.

If you put the baby to breast first, you're going to get a very different reading than if you just, you know, milk in unstimulated boob with no with no letdown. Or if you, you know, if, if you express the milk sample you're going to send in before you nurse or if you do it after you nurse for 20 minutes, you're going to get totally different fat content that's going impact the calories. You're going to get different sugar content. We don't know about the hormones. People are just starting to look at that.

Within a feed, it's going to depend on when, during the day that you've collected the, the sample. Uh, for research purposes we typically collect between 6:00 AM and 10:00 AM because those are considered to be the most representative sample of the day.

I've personally never seen one of the milk kits. I'm kind of tempted to order one and use it on my own milk and then compare with what we can find in a laboratory. But...

**Aunchalee:** Maybe we should do it that way! Like we should take a look at how they recommend mothers express their milk and what the guidance is, and what the parameters are for comparison - and actually if we did one where you like, because you're lactating.  
[Yeah!]

Where we did that, that would be a really kinda cool way to - maybe for next time, maybe for next time you can give us a report on what you found about your own milk.

[Yeah!]

And, and what do you think results mean? [laughing]

**EA:** I don't think I'm going to be running any milk samples in the, in the lab to do a lab comparison, [laughing] but this could kind of be an ongoing conversation!

**Aunchalee:** I have heard or read testimonies about some of these devices where mothers will say, well, my baby wasn't gaining weight. And, so the healthcare provider wanted to kind of assess whether or not there wasn't enough calories being given to my baby through my milk. And this was really helpful.

I have seen these types of tests used in the context of preterm birth and the NICU when physicians are trying to decide what kind of supplementation may be needed, because supplementation is very common in the NICU.

But, I understand that these direct to consumer devices are more for like healthy term infants? So I'm not sure what would you say to the parents or the clinician or a lactation consultant who thinks that these are really helpful? In terms of, uh, assessing....

**EA:** I would say unless you have a really severe issue where you like have a kid that's, you know, is getting 30, 40 ounces of milk a day and it's still failure to thrive, your milk is perfect! Your milk is adapted to your baby. Your milk is changing constantly.

I think what these kinds of devices do, and this need to test milk is it really is playing on maternal anxieties. It's coming out of a, 'Oh well you can read the back of a can of formula and know exactly what your child is getting,' and you can't, you know, breasts don't have nutritional labels on them!

It kind of plays into this anxiety of, 'well is something wrong with my milk? Is something wrong with my body producing for my child?'

I think it really kind of ties into these larger conversations about how, you know, particularly in American culture, women are taught doubt their bodies, and to doubt our ability to successfully breastfeed.

You know, breastfeeding is hard. It is the hardest thing I have ever done! I wrote a dissertation on breast milk, and it was a lot easier than breastfeeding my child for the first 10 weeks of his life! It cost a lot less emotional angst. And, it's hard, and you know, you're sitting up, you have, you have kids, you've nursed, you're sitting up alone in the middle of the night. Your kid is crying, you've nursed and you're like, something wrong with my milk?

**Aunchalee:** Yeah.

**EA:** Is he not getting enough? Does he have a tongue tie? There becomes this kind of checklist.

I think lactation consultants do kind of not universally, but some are looking to reassure women, and others may have ideas.

I had a lactation consultant say, 'I think your milk looks really thin, maybe you have low fat milk. And I said, don't make me test this, because it's not low fat. You can't look at it and tell!'

**Aunchalee:** I'm the expert on this. [laughing]

**EA:** Exactly! I was like, I can send off a sample right now!

And you know, we had a good laugh about that and you know - fantastic lactation consultant, finally got my son to latch when no one else could - but, her kind of looking at it pumping was, 'Oh, maybe your milk's low fat.'

Well, if I hadn't been pumping, she wouldn't have seen my milk to kind of make any judgment off of color.

And, I wonder how much of this kind of ties in with the fact that now we've gone from it being like baby to breast to seeing our milk so much, and that that's leading to these kinds of anxieties.

**Aunchalee:** If we look at the, um, like the cross-cultural literature on breastfeeding, it is a very common concern that mothers have, just concerns about having enough and having it be really good. [laughing]

And I think that it makes sense that that's a common concern. But I do, I mean, I do also share these reservations about the utility and value of these little kits that you take home - when really like, as you said, we have the, the, the frames of reference and the, the, the knowledge that we have with which to interpret the findings of these tests. It's just, it's not solid - it's not evidence-based. It's not good science.

**EA:** Exactly. I mean, if I say, 'Oh, there's 500 micrograms of insulin in your milk,' if that's on a report - for most people, that doesn't really mean anything. But, it's once you can kind of put that in the context and be like, 'well, is that high? Is that low?'

What are the implications of that?

I think the direct to consumer testing, it's preying on fears and the interpretation, the knowledge to do, to interpret the results is not there.

**Aunchalee:** It is also narrowing the diagnosis of whatever is happening with the parent and infant during that nursing relationship to the milk. There is a lot more complexity in understanding if an infant isn't thriving what the potential issues are. And, it has, you know, a lot of it has to do with the birth experience, the kinds of care people have access to, whether or not they have access in their communities and their families if they've had to return to work.

Like there's this whole complex web of things that shape what that nursing relationship is going to look like and to just narrow it down to this diagnosis. it's just such a medicalized way of thinking, and in many ways, it can be construed as a moral, a moral failure, right? A personal failure, if a mother or a parent who is interested in nursing their child or providing milk for the child is told, 'yeah, this is, this is the reason why it's not working.'

**EA:** Yeah. I think we've got to order one of these and see what the interpretive framework is.

**Aunchalee:** I think we do! Yes. We should take a look. That's going to be super fun. [*both laughing*]

All right.

**EA:** Yeah. And well, everyone, we'll see you next month when we'll talk to Aunchalee about her work. We'll turn the tables a little bit.

**Aunchalee:** [*Music*]

Bye everyone!

You've been listening to Anthrolactology. It's a podcast about breastfeeding, science, and society!

Anthrolactology is hosted by me, Aunchalee Palmquist, EA Quinn, and Cecilia Tomori.

Check out our blog at [Anthrolactology.com](https://anthrolactology.com) and follow us on Twitter @Anthrolactology!

[Music]

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Our Buzz Sprout website: <https://anthrolactology.buzzsprout.com/>

#### **Episode Links:**

**Some links we mentioned in the podcast are:**

EA's lab profile: <https://pages.wustl.edu/biomarkersandmilklab>

Mammary physiology/milk synthesis: <https://anthrolactology.com/2018/11/14/who-manages-the-mammaries-physiology-edition/>

EA ranting about breast milk measurement devices:

<https://anthrolactology.com/2020/01/29/the-rise-of-milk-volume-measurement-products-and-the-implied-lack-of-confidence-in-maternal-bodies/>

Project videos: <https://pages.wustl.edu/biomarkersandmilklab/milk-altitude-project-video>

Traditional Tibetan song about motherhood: <https://pages.wustl.edu/biomarkersandmilklab/xiao-ying-song>

Community Action Nepal <https://www.canepal.org.uk/>

Nepal Seeds <https://nepalseeds.org/>