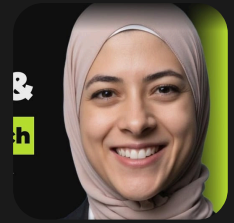


EP 15

June 9, 2026 · 01:06:30

Wearable Ultrasound & Career in MedTech - Dr. Mai Elfarnawany

Dr. Mai Elfarnawany — VP of Technology, Flosonics Medical



Dr. Mai Elfarnawany on FloPatch, a wireless ultrasound patch that tells clinicians within minutes whether a sepsis patient should get more fluids, and on growing from first engineer to VP.

3 min

to a bedside answer on fluids
[16:54](#)

10,000

patients assessed with
FloPatch [24:13](#)

95%

accuracy today, up from 70%
[37:32](#)

20

engineers, from a team of one
[1:14](#)

KEY TAKEAWAYS

1 An ultrasound you stick on

FloPatch is a wireless Doppler patch worn on the neck. A nurse can use it: nobody has to place and aim a probe. [3:48](#)

2 Built for one decision

In sepsis it shows whether a patient is likely to respond to IV fluids, or whether more would risk fluid overload. [4:44](#)

3 Machine learning only where it earns it

The pipeline stays engineered signal processing, with models added in the few places where they beat it. [24:54](#)

4 Document as you go

Compliance got easier by writing things down with every change, automating tests end to end, and adopting new rules early. [30:31](#)

5 Do the job before the title

Each promotion followed work she was already doing, and she had a mentor at every stage. [42:34](#)

“One error in code is not just a website being down, it's the health of the patient.”

Dr. Mai Elfarnawany · [28:52](#)

CHAPTERS

0:00	Intro	1 min	23:36	Where machine learning fits	3 min
1:25	From academia to industry	2 min	26:33	AI agents in development	3 min
3:07	What FloPatch is	3 min	29:23	Staying compliant	6 min
6:35	Why wearable ultrasound is possible now	2 min	35:22	From version 1.0 to today	3 min
8:27	Manufacturing in-house	2 min	38:11	Who she hires	2 min
10:21	From first engineer to team lead	3 min	40:40	Growing a career	5 min
13:27	Writing the first algorithms	2 min	45:20	Leaving the comfort zone	5 min
15:18	A bedside device	3 min	50:05	Finding mentors	3 min
18:32	Ultrasound for everyone?	2 min	53:31	Women in tech	5 min
20:47	Battery and computing	3 min	58:48	What comes next	8 min

TERMS EXPLAINED

Doppler ultrasound

Ultrasound that measures how fast blood is moving, and in which direction.

Fluid responsiveness

Whether a patient's heart will pump more blood when given IV fluids.

Transducer

The part of an ultrasound device that sends and receives the sound.

Sepsis

The body's extreme, life-threatening response to an infection.

Fluid overload

More fluid than the heart can handle, causing swelling and strain on organs.

MENTIONED IN THIS EPISODE

FloPatch by Flosonics Medical

FDA on AI in medical devices

OBIO

Listen, watch or download the transcript: aarsentyev.com/podcast/ep15-mai-elfarnawany

Each time opens the video at that moment. Hosted by Arseniy Arsenyev. A summary of a conversation, not medical advice.