I viewed to the presentation on Alfaxolone dated 11 November 2025 at the following link.

https://www.youtube.com/watch?v=_ux5Aex7KwA

I am not sure what to make of it, there are some interesting/promising points but I feel they take it too far and focus on properties/points that favour their product and neglect the more important properties that we look for in induction agents.

Propofol is an excellent drug due of its anti nausea effect, rapid offset, smooth induction and wake up, ability to titrate its effects so can be used for all levels of sedation from light to full general anaesthetic, it blunts the airway reflexes which allows us to use it when manipulating an airway such as placing airway devices, doing gastroscopies or even intubating in some situations. This is why propofol became the induction agent of choice in the 80s and has remained so. More recently as propofol has favourable pharmacokinetic properties it can also be used for both induction and maintenance where complicated models are used to model how propofol distributes/redistributes in the body and so can be titrated easily and we can time a wake up for the end of the case. On a side note it has much better qualities than the ‘fluranes" which to be technical are volatile liquids at room temperatures and not gases.

- So I suppose my first point would be that alfaxolone would need to excel in all these areas I mention above in order to have any chance of taking a significant market share. These properties would be the most important ones. There was no mention in the presentation of alfaxolone having these properties, so I don’t know if it has these properties or not. I did read that alfsxolone causes nausea which is an issue, the pharmacokinetic profile needs to be explored much more. I couldn’t find anything about this online.

- I would imagine a more realistic role for alfaxolone could be in inducing a very sick patient, like an ICU patient with low blood pressure who cannot tolerate the cardiovascular effects of propofol. We often use Ketamine in this situation. There is another drug called etomidate that is used in the US but not registered in Australia that has some of the favourable cardiovascular properties that alfaxolone is supposed to have.

- I understand the drug is widely used in Vet medicine with one of its main benefits being that you can give an intramuscular injection whist for propofol you need to have drip in to give it intravenously. So with alfaxolone they can sneak up on a dog and jab it, something you cannot do with propofol. I think this is why it is so popular in vet medicine. We wouldn’t do this for a human as it is not really safe.

- The way we give an anaesthetic has been changing over the last 10 or so years. With a gradual swing away from volatiles towards intravenous drugs like propofol. When propofol is used to give the whole anaesthetic there are complicated models that model the way the drug distributes in the body. If alfaxolone is to be used in this way

similar models would have to be developed and I am not sure if alfaxolone has the right pharmacokinetics to enable this. Maybe it does.

- If the idea is to just use alfaxolone as an induction and then use something else to keep them asleep then the neurocognitive benefits will not be much of a thing and the market share would be much less, as you are using different drugs to keep them asleep after induction.

- The neurocognitive benefits are interesting. This is a developing area of anaesthesia as older and older patients are having bigger and bigger operations. They often survive the operation but may have some neurological defect. Also anaesthetics have been shown in animal models to impair neurodevelopment in children. The neuroprotective effect of alfaxolone does appear to be a thing and there is some evidence for it but all in animal models. Not sure if it would actually have any clinically meaningful outcome or if it could ever benefit proven in humans. However if somehow they showed that alfaxolone is better for your brain than propofol that would be a compelling argument, I just cannot see that actually happening. To me this side is all much more theoretical nuances rather than something that would make you change the drug you use.

To answer your question I don't think he is talking complete rubbish. But I would be very surprised if alfaxolone takes a significant market share away from propofol. I am not sure how it all works but my understanding is they cannot have a patent for the actual drug but they just have one for the formulation if that is possible. On a side note propofol is really cheap like $1.50 for enough to put someone asleep and then maybe $2-5/hr to keep them asleep, it is a big industry for propofol because they essentially own the whole market. It is off patent now so there are lots of different brands.