



2024 INTERVIEW SUMMARY SHEET

SPEAKER

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TITLE & ORGANIZATION

**Professor of Neurology and Neurologist
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TOPIC

Migraine Biochemistry: CGRP & Beyond

KEY TAKEAWAYS

- There are multiple pathways involved in migraine, and some people may require medications that address different ones.
- CGRP (calcitonin gene-related peptide) is a peptide found in the brain and other parts of the body. It has long been thought to play a role in the pathophysiology of migraine.
- There are two types of CGRP inhibitors: monoclonal antibodies and CGRP receptor antagonists, or gepants.
- The effectiveness of CGRP inhibitors varies: About half of people taking them experience a reduction in migraine attacks, and about 15%-20% experience complete relief.
- Side effects from CGRP-targeted medicines have so far been generally minimal, with constipation being the most common one.
- PACAP (pituitary adenylate cyclase-activating polypeptide) is another neuropeptide being explored as a potential target for migraine treatment. Initial study data showed that blocking PACAP with a monoclonal antibody that targets it can reduce the frequency of migraine.
- Another possible new target being studied for migraine treatments is glutamate (an excitatory chemical in the brain) and its receptors.

TREATMENTS CITED

Almotriptan	Frovatriptan
Amitriptyline	Galcanezumab
Atogepant	Naratriptan
CGRP inhibitors	Propranolol
CGRP monoclonal antibodies (mAbs)	Rimegepant
CGRP small-molecule receptor antagonists (gepants)	Rizatriptan
Eletriptan	Sumatriptan
Eptinezumab	Topiramate
Erenumab	Triptans
Fremanezumab	Ubrogepant
	Zavegepant
	Zolmitriptan

QUOTES

"So what we're looking for in the future, as with the CGRP story, [is] doing spectacularly well for the people who get a response and establishing other targets for those who don't. And as disappointing as the CGRP story is, the upside is it shows you that if you actually understand individual parts of the biology that are important and you target them, you'll get people who will respond. They'll respond very well, and they'll get good tolerability. The nonresponders are a call to double down on our efforts on the research side."

"And I think there'll come a time when there'll be a smorgasbord. And there'll be a range of choices, and we'll need to try and work out how to pick from the smorgasbord for the individual to get reliability, to get excellent tolerability. I think that's a little way off, but it's not so long off that we won't see it."

"The problem, in many ways, is not finding the targets in the biology in the lab but is to develop safe drugs that you can use to manipulate those without side effects in humans. There's quite a bit of work and the chemists have a lot to do. And the chemists have done a great job getting us the gepants and the ditans and the triptans. And I have no doubt the chemists will get us other medicines that we need."

PRACTICAL STEPS

- Discuss the different new CGRP inhibitors with your doctor and consider trying them.
- Stay informed on the latest research and development options in migraine and be open to the range of treatments likely to be available in the foreseeable future. Stay hopeful.
- Consider participating in clinical trials for new migraine treatments.
- Communicate with your healthcare team about your symptoms and treatment responses to help them make necessary adjustments to your treatment plan.