

**About our guest****Cath Moore, PhD**Chief Scientific Officer
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SPEAKING OF
MOL BIO

Multimomics, systems biology, and the future of genomic research

Season 3, Episode 11

Episode notes

In this episode of Speaking of Mol Bio, Dr. Cath Moore of the **AGRF, Ltd. (Australian Genome Research Facility)** discusses how molecular biology technologies are helping to shape Australia's scientific landscape—from clinical genomics and conservation to bioremediation and agriculture. With over 20 years of experience in both academia and industry, Dr. Moore reflects on the remarkable evolution of genomic tools, from Sanger sequencing to high-resolution spatial multimomics.

She unpacks AGRF's mission to democratize access to emerging technologies and highlights its role as an early adopter of platforms that help scientists translate academic research into real-world impact. Topics include non-mass spec proteomics, mine site rehabilitation through soil microbiome analysis, and the role of systems biology in modern science.

Dr. Moore also discusses the importance of community education and literacy around genomics, emphasizing how public understanding is key to the safe adoption of emerging technologies like synthetic biology. Finally, she shares career insights and advice for aspiring scientists: stay curious, stay broad, and don't be afraid to pivot when your work no longer brings joy.

“I think now there's a consensus of understanding that, without understanding the multimomic environment, you're not really understanding the true biology of what's happening in a biological organism and increasingly in an ecosystem. We're going to continue to have an approach where we're looking at systems, not just individual organisms.”

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