Beyond AI Music: Experience 'Molecular Rock' Generated by the DNA Code of Life

The Molecular Rock Album features Science Audio made from DNA Sequences and will be performed at Sydney Opera House during National Science Week

The cover art for Mark Temples second album Molecular Rock

SYDNEY, AUSTRALIA, July 29, 2025 /EINPresswire.com/ -- Mark Temple is set to release Molecular Rock - a new album that surprisingly turns gene sequences into music. The album will be available on all major streaming platforms from early August and will be launched live at the Utzon Room, Sydney Opera House on Tuesday, August 12, 2025, as part of National Science Week.

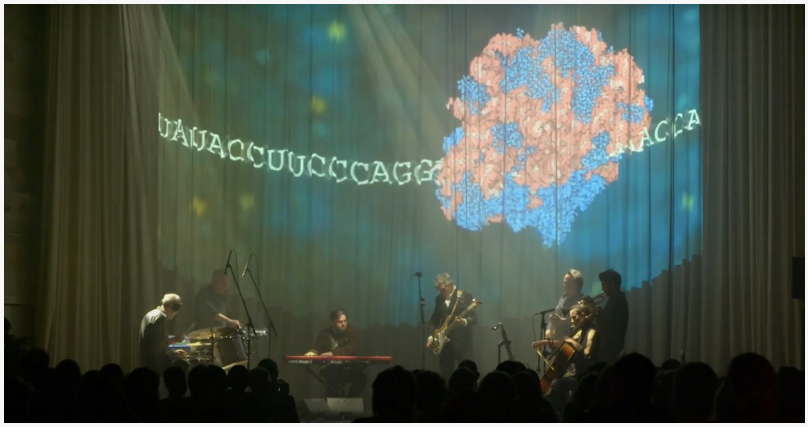
The project blends Molecular Biology and Music through DNA sonification - a process that converts genetic code into audio for data analyses. The result is a rhythmic, and unpredictable soundscape that is scientifically authentic and sonically adventurous. Taking the science audio into the recording studio was an act of bravado... and dare we say gene-ius! Featured tracks from the album can be heard before release on Marks Blog.

> this is just amazing... and beautiful and ethereal music..."
>
> *NPR and New Scientist*

The Mark Temple and the "Biologically Exploding DNA Sequence Inevitable" present their the difficult second album!

Molecular Rock is Temple's second full-length album and it's a no-holds-barred fusion of art, science, and improvisation. This DNA-inspired music following his earlier RNA inspired Coronacode Music album. Whilst you might need a text book to delve deep into the theory, fear not... the music

grabs you by the ears and drags you out of the laboratory and into the creative space.



The Biologically Exploding DNA Sequence Inevitable appears live on ABC TV. The 7 piece ensemble played music over the audio from sonified DNA sequences

Mark Temple during rehearsal of drums part for Molecular Rock

Molecular Rock dives into the DNA of eucalyptus and the plant pathogen Myrtle rust. Using custom software, DNA sequences were converted into musical structures - mapping mono-nucleotides (A, T, C, G), di-nucleotides, and tri-nucleotides (codon) into sound. These sonified genetic patterns act as the foundation for the album's tracks, forming pulsing rhythmic beds and synthesiser sequences.

By mapping individual nucleotides, pairs of bases, or codons to musical notes, researchers can distinguish between coding and non-coding regions. The sonification algorithms allow for the identification of gene start and stop signals (open reading frames) and can highlight the effects of mutations, such as insertions or deletions in repetitive sequences. Feel free to release your inner-scientist and lookup Mark's publications in BMC Bioinformatics. The systematic nature of the sonification ensures that the same DNA sequence always produces the same audio, which supports scientific analyses, and more recently this has been adapted for music composition, as described in The Conversation article '[Forget AI-generated music, this music was composed using DNA sequences]'.

Mark Temple then bashed his live drums over the science audio before the 'inevitable' musicians came onboard. Renowned ARIA Award-winning producer Wayne Connolly led the production. In an unorthodox process, musicians recorded their parts without hearing what the others had played, responding only to Temple’s drum performances and the beep bleeps of the DNA-based sequences. This approach aimed to capture the raw creative process blending science and art and provided an opportunity for post-production arranging of the recorded parts by Temple.

Launching at Sydney Opera House: “Synthetic Compositions”

The Molecular Rock Album will be release on streaming services to coincide with the launch on

Tuesday, August 12, at the Utzon Room, Sydney Opera House, as a part of National Science Week. The event is called 'Synthetic Compositions' which features music made from composed DNA sequences as well as the Molecular Rock sequences taken from biology. The performance will bring together science audio and musicians on the big stage. The evening will feature: Mark Temple on drums, Paul Smith (University of New England) on piano, Mike Anderson (Los Monaros) on guitar, and 'The Insufferable Paul Scott' on bass. Oh and how could we forget, the DNA sequences are controlling the synthesisers! The performance explores the musicality of the genetic code, and the creative potential of interdisciplinary collaboration between scientists and musicians.

For those of you who are lucky enough to be in Sydney... tickets are available now via the Sydney Opera House box office.

Artist Profile: Mark Temple
Dr. Mark Temple is a Senior Lecturer in the School of Science at Western Sydney University and a member of MARCS. He is known to many as founding member of Sydney's beloved indie-rock band 'The Hummingbirds'. Mark's role at the university is described here. Over the last decade, he has carved out a niche at the intersection of science, sound art, and experimental music in his out-reach activities. His work brings together musicians, data science, and creative artists to create sonic experiences rooted in molecular biological, whilst still staying true to his indie-rock origins.

Project Partners and Support
Synthetic Compositions, an Inspiring Australia NSW initiative is supported by the Australian Government as part of National Science Week. The live performance and associated outreach are presented in partnership with Western Sydney University's School of Science, The SEED Lab (School of Humanities and Communication Arts), and the Australian Plant Biosecurity Science Foundation, which supported the album’s production as out-reach into the devastating effects of Myrtle rust on Australian native vegetation.

Quick Details
- Album Title: Molecular Rock
- Streaming Release Before: Tuesday, August 12, 2025
- Live Event: Synthetic Compositions: Music Made From Artificial DNA Sequences
- Venue: Utzon Room, Sydney Opera House
- Date/Time: Tuesday, August 12, 2025 @ 7:00 PM

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