

Supplementary Material for the web: Companion music playlist

Song titles inspired the headings of this article according to the format used by Kamoun, S. 2007. Groovy times: filamentous pathogen effectors revealed. *Curr Opin Plant Biol*, 10:358. Below is the companion song playlist and a brief description of how these songs somehow relate to oomycete effector biology. As in the past, we hope that this format is not just entertaining but would also serve as a useful mnemonic to students.

More And More, Captain Hollywood Project – As *more and more* oomycete genomes are sequenced, *more and more* families of secreted proteins have emerged. Thus this German eurodance '80s hit perfectly sums up the current state of affairs.

Rise And Fall, Galliano, The Plot Thickens (Album) – The title of this acid jazz album illustrates the confused state of the different models that have been proposed for entry of oomycete and plasmodial effectors into host cells. Their popularity seems to *rise and fall* as new papers are published. As always in science, time will tell.

Take Five, The Dave Brubeck Quartet – An awesome classic jazz piece inspired by Turkish street musicians. *Take Five* was selected in dedication to the *five* 3D structures of oomycete RXLR effectors that were published in 2011.

Poker Face, Lady Gaga – Effectors with an avirulence activity have to evolve a *poker face* – they need to evade recognition by plant immune receptors while maintaining their ability to enhance virulence.

Two Of A Kind, Michel Camilo – A lovely piece by the Grammy award-winning latin jazz pianist to illustrate the unexpected finding that RXLR effectors can dimerize inside plant cells.

Lonely Stranger, Eric Clapton – That Nudix hydrolase effector does stand as a *lonely stranger* among RXLR effectors given that the great majority of them do not have similarity to known proteins.

I Just Can't Get Enough, Nouvelle Vague – In recent years, the oomycete community has performed a number of high-throughput effectoromics screens. *We just can't get enough* activities and phenotypes associated to those effectors!

Where Do You Think You're Going, Dire Straits – Finding out where oomycete effectors go once they are inside plant cells is an important aspect of studying their functions.

Candy Everybody Wants, 10,000 Maniacs – Natalie Merchant is at her best in this title from her last album with the band named after the low-budget B-movie "Two Thousand Maniacs!". "If host targets is the candy, then give 'em what they want".

You're So Different, Beauty Supply – The extrahaustorial membrane (EHM) is thought to originate from plant membranes but is nonetheless *so different* in its protein composition.

Wrapped Around Your Finger, The Police – The RXLR effector AVRblb2 accumulates at the EHM and *wraps around* haustoria, which do have a finger-like structure in *Phytophthora infestans* (Fig. 2).

The Best Is Yet To Come, Ella Fitzgerald – "Out of the tree of life, I just picked me an effector. You think you've seen the sun, but you ain't seen it shine. *The best is yet to come...*" What else to add?