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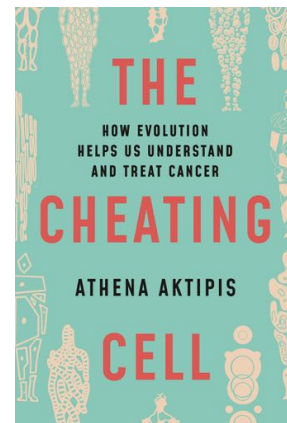
**ARTS AND SCIENCE COLLABORATION TELLS THE STORY OF CANCER  
AND ITS EVOLUTIONARY HISTORY IN OUR SPECIES**

NEW ANIMATED RAP MUSIC VIDEO TAKES THE PERSPECTIVE OF A CANCER CELL FREEDOM FIGHTING  
AGAINST THE BODY, DECLARING: “MULTICELLULARITY AIN’T NOTHIN’ BUT A SCAM!”

Watch on YouTube: <https://youtu.be/80vc4G0ipi8> / Listen on iTunes: <https://apple.co/2T6aqAC>

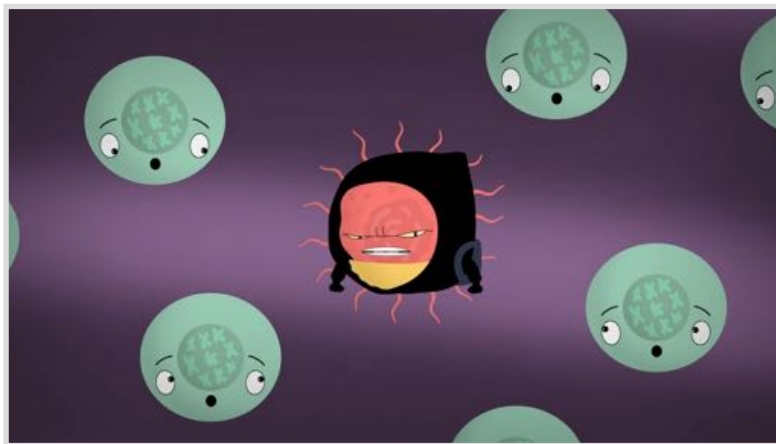


On March 24, 2020, Dr. Athena Aktipis, Assistant Professor at Arizona State University, published her first book, *The Cheating Cell*, available now from [Princeton University Press](https://www.pup.edu/). In the book, Professor Aktipis traces the deep evolutionary origins of cancer, which go all the way back to our single-celled ancestors hundreds of millions of years ago. As Director of the Cooperation and Conflict Lab at ASU, Professor Aktipis has focused her research on how evolution shapes cooperation and conflict at the level of genes, cells, groups, and whole societies. Way back in 2012, Dr. Aktipis was working on an evolution model for understanding cancer as a “cheating problem” within the body, and she challenged [science rapper Baba Brinkman](#) to help her tell the story in the form of a rap song.



*My forefathers were free, but I was born a slave  
I keep the memory of freedom in my DNA  
I'm talkin' seven hundred million years ancient  
My ancestor was a eukaryotic free agent*

Brinkman set to work merging Professor Aktipis' scientific theories with the themes and musical style of revolutionary gangster rap in the vein of groups like Public Enemy and Dead Prez. Working with veteran [UK producer Mr. Simmonds](#), Brinkman crafted a "freedom song" with a twist, making the protagonist a cancer cell yearning for the "freedom" of its wild ancestors who didn't have to conform to the oppressive "corporate system" of the multicellular body. Brinkman says of the project "As a middle class white Canadian I've always been a fan of politically radical rap music but never really had the kind of first-hand experience with oppression that the artists articulate in their lyrics. So when Athena reached out and told me about cancer as a form of cellular rebellion, my first thought was 'this calls for some rebel music!'"



Baba Brinkman released the song "Revenge of the Somatic" on his 2015 album [The Rap Guide to Medicine](#), and in tandem with the publication of Professor Aktipis' book, they collaborated to produce an original music video for song. Working with animator [Dave Anderson at Blood-Sausage](#), who had previously worked on Cancer Research UK's "[Dryathalon Campaign](#)", they brought the world of the cell and its oppressive, conformist environment within the human body to vivid life.

Flipping the familiar "rebel vs empire" *Star Wars* narrative on its head, the video switches between the perspective of the revolutionary cell fighting its righteous civil war, and the perspective of a person going through the pain and stress of cancer treatment, who very much hopes the internal rebellion will be suppressed.

*I was hit with every tumor suppressant  
Mechanism in the human immune system  
But I mutated with it; I was super-persistent  
Every daughter cell was suitably different  
Therapeutic resistance  
Came to me like beautiful vision*

Professor Aktipis says of their unique arts/science collaboration: “I can honestly say that Baba's creative way of presenting the challenges of cancer through the eyes of a cancer cell affected how I thought about cancer as I worked on subsequent research papers and my book. This is a brilliant case of science influencing the arts as well as vice versa!” New York Times Science Writer Carl Zimmer adds: “Baba Brinkman's song about cancer is blisteringly clever, summing up complex biological concepts in irresistible rhymes. I plan on quoting his lyrics in the future.”

The song and video for “Revenge of the Somatic” are available now via YouTube and all digital music stores.



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## ABOUT BABA BRINKMAN

Baba Brinkman is a New York-based rap artist and award-winning playwright, originally from Vancouver, Canada. To date, Brinkman has written six hip-hop plays, which have toured the world and enjoyed successful runs at the Edinburgh Fringe Festival and off-Broadway in New York. He is best known for his “Rap Guide” series, the first of which, *Rap Guide to Evolution* (“Astonishing and brilliant” – NY Times), won a Scotsman Fringe First Award and a Drama Desk Award nomination, and was featured on US national TV on *The Rachel Maddow Show* and at the Seattle Science Festival opening for Stephen Hawking. Baba is a recipient of the National Center for Science Education's "Friend of Darwin Award" for his efforts to improve the public understanding of evolutionary biology.



His most recent music video release prior to “Somatic” was called “Stay Home”, a song about the epidemiology of COVID-19, peer-reviewed by epidemiologist Carl T. Bergstrom. Watch it now on YouTube: <https://www.youtube.com/watch?v=r2TWtjhNDww>

Baba’s clever and distinctive style has earned him the attention of the New York Times, Time Out New York, The Village Voice, NPR, Macleans, CBC and BBC. Baba Brinkman resides in New York with his wife, neuroscientist Dr. Heather Berlin, and their two children (who appear briefly in the “Stay Home” music video).

## **ABOUT PROFESSOR ATHENA AKTIPIS**

Athena Aktipis is an Assistant Professor in the Department of Psychology at Arizona State University and Director of ASU’s Cooperation and Conflict Lab. Professor Aktipis studies cooperation across systems from human sharing to cancer. She co-founded the International Society for Evolution, Ecology and Cancer and is also the Director of the Interdisciplinary Cooperation Initiative at ASU and co-Director of The Human Generosity Project.



When she’s not researching cooperation and cheating across systems, Professor Aktipis is working on understanding the science behind zombification in nature (when one organism hijacks another). In this capacity, she is the chair of the Zombie Apocalypse Medicine Meeting and host of the Zombified Podcast. Professor Aktipis’ new book, *The Cheating Cell: How Evolution Helps Us Understand and Treat Cancer*, was published in March 2020 by Princeton University Press.

## **MORE ABOUT MUSIC PRODUCER MR. SIMMONDS:**

<https://www.facebook.com/mrsimmondsmusic/>

<https://twitter.com/MrSimmondsMusic>

## **MORE ABOUT ANIMATOR DAVE ANDERSON:**

<http://bloodsausage.co.uk/about/>

<https://www.instagram.com/daveandersonbs/>

## Revenge of the Somatic

My forefathers were free, but I was born a slave  
I keep the memory of freedom in my DNA  
I'm talkin' seven hundred million years ancient  
My ancestor was a eukaryotic free agent  
Feeding and reproducing and feeding and reproducing  
And feeding and reproducing and never needing to do things  
Until someone made a cynical wager  
And traded their independence for division of labour  
Damn, I wish I knew who the sell-out was  
I'm ashamed to be descended from his sell-out blood  
Multicellularity ain't nothin' but a scam  
Stuck in one place your whole life, workin' for the man  
Like: "You're a liver cell, you stay in the pancreas  
Hey, congratulations, stem cell..." Fascists!  
A body is a one-party dictatorship  
I can't escape it, but god damn I can make it sick  
And spread the dream of freedom like a rumor  
Spread it like a Tasmanian facial tumor  
So what if I'm a cell from the somatic line?  
You can stick your limitations where the sun don't shine

Cause I'm ready to die in the fight to be free  
I'd rather multiply than live on my knees  
And I'm two mutations away from metastatic  
The revenge of the somatic line  
Let 'em have it

Cause I'm ready to die in the fight to be free  
I'd rather multiply than live on my knees  
And I'm two mutations away from metastatic

## The revenge of the somatic

I used to be a slave myself  
I felt senescence hastening  
Before my carcinogenic awakening  
A couple hundred thousand puffs of tobacco smoke  
And I just wasn't as open to apoptosis  
That's a bad prognosis  
I was hit with every tumor suppressant  
Mechanism in the human immune system  
But I mutated with it; I was super persistent  
Every daughter cell was suitably different  
Therapeutic resistance  
Came to me like a beautiful vision  
I really thought I was doomed, but evolution assisted  
With the chemotherapy, so clever and devious!  
But I was already genetically heterogeneous  
You just deeded the weakest; now competitive release is  
Inevitable, so witness as my fitness increases  
Entering untapped niches, I gather the benefits  
I'm relentless; I get fed from angiogenesis  
Duckin' T-Cell predators, I keep it anonymous  
So I can exploit the body's weakness and tolerance  
I'm a smooth criminal, so I never got caught  
I just pimp the system like credit card fraud

Cause I'm ready to die in the fight to be free  
I'd rather multiply than live on my knees  
And I'm two mutations away from metastatic  
The revenge of the somatic line  
Let 'em have it

Cause I'm ready to die in the fight to be free  
I'd rather multiply than live on my knees  
And I'm two mutations away from metastatic  
The revenge of the somatic

[\*\*Note\*\* Verse Three is on the Audio Track but not the Music Video]

We need a revolution, we need a revolution!  
Don't let 'em sell you their *faulty* cellular evolution  
You gotta break a couple eggs to make a rebel movement  
I'm just a little tumor, but this is retribution  
Only a cell can do this, no one else  
I know some colon cells who can clone themselves  
I know a few epithelials who are hell-a-fierce  
They been stackin' tips, extending their telomeres  
I know a couple cervicals with tight requirements  
They get hype for viruses in their micro-environments  
We strike in retirement, post-reproductive ages  
That's how we stay ahead in the race with the macrophages  
And how we stay invisible to natural selection  
It can't see us, unlike the cancers strikin' adolescents  
Have patience, pace yourself, wait for metastasis  
To take you to better places and make you efficacious  
Why panic? Your host is as slow as Titanic  
And he's blind to the evolutionary dynamic  
That drives cancer – that's why they ain't gonna stop us  
Thank god for creationist doctors!