Rejuvenation

The chase is on.

Julian Tang

"So, can anyone tell me about the Hoffman vortex?"

Mr Murphy looked expectantly at his small A-level physics class as some clusters of excited murmuring broke out.

"Conferring is allowed," he chuckled. "Catherine, Rebecca, come on! Tell me what you think before these rowdy boys beat you to it!"

Looking at her and grinning, Rebecca nudged Catherine, urging her to speak first.

"Well," Catherine began hesitantly, as the boys looked up, curiously. "Discovered by the physicist, Hans Hoffman, it was found that when two rings of a specific diameter and thickness of the radioactive element zylerium are counter-rotated at a specific rate about the same axis, at a specific distance apart, a vortex of zyleron particles is produced between the two rings."

Rebecca clapped her on the back, congratulating her on her answer.

"Perfect!" exclaimed Mr Murphy in delight. "Now boys, what does this vortex do? Come on now, don't let the girls show you up!"

"Well, it was only one girl, sir," retorted Paul, leader of one of the boys' 'think tank' clusters.

"True, I stand corrected," replied Mr Murphy, in mock humility.

Jonathan, the leader of one of the other boy think tanks, raised his right hand.

"Ah! Jonathan! What can you offer me on this fine day?" Mr Murphy looked at him, hopefully.

Jonathan scratched his right ear, a habit of his before answering a question in class. "The Hoffman vortex created by two rings of zylerium, arranged in the way that Catherine described, has been postulated to reverse the effects of ageing, mainly by reversing the effects of solar radiation and other ageing processes at a cellular level."

"Yes, well done! We're firing on all thrusters today, class!" Mr Murphy grinned widely and clapped his hands, as Jonathan's friends punched him, playfully.

"OK, now Paul, have you anything else to add?" Mr Murphy clasped his hands on his stomach and twiddled his thumbs in expectation.

After some brief, last-minute conferring with his friends, Paul cleared his throat loudly (something that he always did before speaking in front of the class).

"Yes, all of that is fine, but these effects

have only been shown in microorganisms, such as bacteria. The problem is that the amount of zylerium we can produce and purify at this time is in the order of milligrams. To make zylerium rings large enough to produce a man-sized Hoffman vortex will need a much more efficient way to produce zylerium," he finished proudly.

"Excellent!" said Mr Murphy, bowing slightly in Paul's direction.

Then another student, Ben, put his hand up. He was relatively new, having joined the class at the beginning of the current school-term. Quietly assertive and intelligent, he seemed to be mature beyond

his teenage years. He had quickly gained the respect (and in some cases, awe) of his classmates and teachers.

"Yes, Ben," nodded Mr Murphy, with interest.

"There is another hypothesis, sir," he started, carefully. "The addition of a third zylerium ring creates a modified Hoffman vortex, which allows space-time travel, on top of the rejuvenation effect." Ben smiled, knowingly, at him.

All the students looked at him in amazement.

"Where did you hear that, Ben?" blurted out Paul. "Has it been published somewhere, yet?"

Ben shook his head slightly. "Let's just say that this was a 'personal communication' of some sort," replied Ben, evasively. He was still looking at Mr Murphy, intently.

Mr Murphy returned his look, impassively for a moment then glanced around, quickly. "OK class, you can all leave a bit earlier today. Ben, can you stay behind for a minute?"

Ben nodded, still smiling at him and remained seated.

Bemused, the rest of the students filed out in silence, leaving the two of them alone.

Mr Murphy shut the door then sat on the front bench, facing Ben.

"So, well done Ben, or shall I call you by your real name, Jan Bendarian, the bounty hunter? The rejuvenation process suits you," Mr Murphy sneered.

Ben/Jan did not move from his seat. "We don't care about you, Murphy, we just want the device. What are you planning to do? Reduce this world's population to a bunch of babies and let them starve to death at your whim?"

"What? Me? Be so inhumane? Never!" Murphy seemed sincere in this. "This world has treated me well. It accepted me as one of them, even letting me teach their young minds. I had planned to settle here into my old age, peacefully. Now, you've spoiled all that," he finished, grimly.

While he was saying this, Murphy had casually moved back behind the bench, in front of the blackboard. Now, suddenly, he hit a hidden switch under the bench-top then, waving and laughing at Ben/Jan, he walked backwards *through* the blackboard and wall behind him, disappearing. The blackboard and wall reformed after him.

Ben/Jan, still seated, sighed and took out a small device from his pocket. Yes, the microscopic tracking beacon he had slipped into Murphy's coffee last week was still functioning. It would have lodged somewhere in his gut, where it would remain, unless Murphy had it surgically removed.

Examining the bench and blackboard, he found the switch easily and entered Murphy's inter-dimensional storage area behind. Murphy had long gone to some other space-time destination, probably already with a different age and disguise, with the help of the Hoffman vortex generator.

What the hell, he thought. He had already pursued him through five locations, what was one more? He always enjoyed a good chase. Chuckling to himself, he turned on his belt-mounted Hoffman field (a more advanced, portable form of the Hoffman generator) whereupon his image shimmered briefly, then he too disappeared. ■

Julian Tang is a clinical/academic virologist. This story is dedicated to his real 'A'-level physics class led by the real Mr Murphy, who kept us all stimulated with his humour and sarcastic wit. Join the discussion of Futures in Nature at go.nature.com/QMAM2a

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