



TOMORROW'S FUTURE SCIENTISTS



WELCOME TO OUR

Monthly Newsletter

As we enter the month of April, SCISOC wishes the best of luck to all students as exams and assessments begin to creep up! With the pressure starting to build, it's essential that all you avid scientists remember to take breaks, stay organised, and get some well-deserved sleep.

What better way to unwind than by taking a quick read through SCISOC's very own newsletter... PRISM!

This month's edition features the brilliant work of our Publications Subcommittee, bringing you the latest on what's been happening within SCISOC, as well as a preview of our exciting upcoming events. Be sure to also check out some fascinating recent advances in the scientific world, along with a few handy university tips to help you stay on track.

Happy reading, and best of luck with your studies!



2026 SCISOC CAMP

Day 1 was all about finally meeting our camp groups, with energy running high from the very start. Once we arrived, **group challenges commenced**, leaving male camp leaders holding tight onto their pants. The night picked up with a chaotic round of “**Minute to Win It,**” where campees planked for impossibly long. Safe to say, **Day 1 set the bar very high for the rest of camp.**



Day 2 kicked off with competitions, including a round of cup pong, where losers had to drink a delightful **concoction of red bull, bread, lemonade and crackers.** In the afternoon, groups got creative with **flag making** before we gathered for a wholesome group photo. The energy was kept high for the **dance party** in the evening, rounding off **another unforgettable day of camp.**

Although we all entered **Day 3** exhausted and sleep deprived, we boarded our buses in high spirits and made our way back to uni, **wrapping up a wonderful 2026 SCISOC “campchella”.**





If you missed out on joining SCISOC subcommittee (or just didn't have the time), don't worry, you're in the right place. Through this newsletter, you can **live vicariously** through the memories we've made so far.

Subcommittee induction kicked off with everyone finally meeting their ports. HR's slideshow gave us a glimpse into the year ahead, notably the Sponsorship requests that require **8-9 weeks** to process...But the real highlights was Productions' 20 minutes video showcasing the talent of SCISOC, dance-offs, and Socials stalking around with their **pink furry tails**.



Post-induction celebrations took us to CNK, with a few brave individuals attempting the **Surry Hills to Central run**, leaving some fighting for air for ten minutes. After refuelling, the night quickly escalated before making our way to a special alley, with half the society eventually turning bright red.



The night wrapped up at **Sydney Karaoke**, the perfect end to a long, yet successful induction day, and **we can't wait for the year ahead!**





Bumble bees show a surprising knack for rhythm?

Bumble bees may not seem like likely musicians, but new research has revealed they have a hidden talent... **RHYTHM!!**

New research shows these tiny insects can recognise and follow beats, even when tempo changes. In other words, they don't just hear a pattern, they understand it. Until now, this skill has only been documented in humans, some birds, and a few mammals.



In the study, researchers trained bumble bees using blinking **LED light** sequences paired with a sugar water reward. The bees learned to distinguish between different rhythmic patterns, such as alternating long and short flashes and consistently chose the pattern linked to the reward. Remarkably, when the scientists later sped up or slowed down the flashing sequences, the bees still recognised and responded to the correct rhythm, even without the reward present.

This suggests that the bees were not simply memorising a fixed sequence of flashes, but instead grasping the underlying structure of the rhythm, similar to how humans can recognise a familiar song whether it's played faster or slower. This ability is called *flexible rhythm perception*, such processing indicated a higher level of cognitive flexibility than previously assumed for insects.

The findings challenge long standing ideas that complex perceptual abilities require large brains. Instead, they add to a growing body of evidence that bees, despite their tiny brains, are capable of surprisingly advanced behaviours, including problem solving, tool use, and social learning. Now you can add "*keeping the beat*" to their resume.

Why do bees need rhythm? Scientists aren't completely sure, but it may help them make sense of a world full of patterns, from timing of flower visits to social interactions in the hive.

So next time you hear a bee buzzing by, don't just swat it away, there's a tiny brain in there that might just have better rhythm than most of us.



Decoding the Peptide craze:

Separating biochemical signaling from marketing hype

The term "**peptide**" is currently undergoing a massive rebranding. Once confined to the pages of organic chemistry and endocrinology textbooks, these amino acid chains are now the center of a "wild west" wellness industry. A recent deep dive by *Scientific American* explores why these molecules are so promising, yet so poorly understood by the public.



The Biochemistry: Why Peptides?

Peptides are the body's natural messengers. Unlike full proteins, which have complex 3D folding patterns, peptides are short, flexible, and highly specific in their binding.

- **Mechanism of Action:** They function by binding to specific cell-surface receptors (often G protein-coupled receptors), triggering intracellular signaling cascades.
- **The Appeal:** Because they are natural signaling molecules, they are often perceived as "safer" or "more natural" than synthetic drugs.
- **Therapeutic Potential:** There are currently over 80 peptide-based drugs approved by the FDA, including treatments for type 2 diabetes, osteoporosis, and multiple sclerosis.



The Challenge: Pharmacokinetics and Stability

If peptides are so effective, why aren't they all available as simple pills? The *Scientific American* report highlights several major physiological hurdles:

1. **Proteolysis:** The human digestive system is designed to break down peptides into individual amino acids for nutrition. This means most peptides have zero oral bioavailability.
2. **Short Half-Life:** Once in the bloodstream, peptides are rapidly cleared by the kidneys or degraded by enzymes (peptidases).
3. **The Delivery Problem:** To make peptides work, scientists must "mask" them with fatty acids or enclose them in protective coatings to prevent premature breakdown.

The Student Takeaway: A Lesson in Bioavailability

The peptide craze is a perfect case study in pharmacodynamics. A molecule can be incredibly potent in a petri dish (*in vitro*) but completely useless if it cannot reach the target tissue in a stable form (*in vivo*).



RAMEN RANKINGS



With finals fast approaching, survival mode has officially kicked in—and that usually means one thing: instant ramen on repeat. It's quick, it's easy, and most importantly, it won't destroy your already struggling student budget. Whether you're pulling a late-night study session or just can't be bothered to cook, these trusty cups have you covered. You can find all of them at your nearest Asian grocer, ready to carry you through exam season one slurp at a time.

THE RAMEN LINE UP!!!



SHIN: \$2.2



CHAPAGETTI: \$2.5



SESAME: \$3.7



BULDAK CARBONARA: \$3



BULDAK SPICY: \$3.5



SHIN IS MY FAV!





RANKING CRITERIA:

TASTE - DUH

TEXTURE - SOFT OR STALE AS A ROCK?

AESTHETICS - DOES IT PASS THE EYE TEST?



SHIN: 8.38/15
TASTE: 3.8/5
TEXTURE: 2.75/5
AES: 1.83/5

A CLASSIC FLAVOUR WITH A NICE KICK, BUT THE TEXTURE AND OVERALL PRESENTATION WERE A LITTLE UNDERWHELMING.



CARBONARA: 11.4/15
TASTE: 4/5
TEXTURE: 3.7/5
AES: 3.75/5

CREAMY, RICH, AND WELL-BALANCED WITH GREAT TEXTURE, MAKING IT ONE OF THE STRONGEST OVERALL CHOICES.



CHAPAGETTI: 10.4/15
TASTE: 4/5
TEXTURE: 4.1/5
AES: 2.35

STRONG FLAVOUR AND EXCELLENT NOODLE TEXTURE, THOUGH THE APPEARANCE WAS LESS APPEALING THAN OTHERS.



SPICY: 10.6/15
TASTE: 3/5
TEXTURE: 3.6/5
AES: 4/5

BOLD HEAT AND GOOD PRESENTATION STOOD OUT, BUT THE FLAVOUR BALANCE WAS SLIGHTLY TOO INTENSE.



SESAME: 10/15
TASTE: 3.8/5
TEXTURE: 3.5/5
AES: 2.6/55

COMFORTING AND SMOOTH WITH DECENT TEXTURE, BUT IT LACKED THE STANDOUT FLAVOUR OF THE HIGHER-RANKED OPTIONS.



SLURP & SCORE!

THE ULTIMATE RAMEN RATINGS

The publications port took on a very serious task of taste testing and ranking five brands of instant cup ramen. From flavour and texture to overall aesthetics.

While our methods may not pass peer review, our conclusions are bold - and potentially debatable.

**AFTER CAREFUL CONSIDERATION....
OUR WINNER IS...**

BULDAK CARBONARA!!!



4TH



LAST PLACE...

