First person – Jonathon McPhetres

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Describe your scientific journey and your current research focus
While my background is in psychology, my fascination lies in the physiological responses underpinning psychological experiences, such as emotions and stress. To connect the psychological to the biological, I use a range of methodologies, including the analysis of biomarkers in blood and saliva, cardiovascular measurements, and behavioural assessments. I like to think of it as ‘psychology from the neck down’.

Who or what inspired you to become a scientist?
Carl Sagan and Bill Nye. While I have always been a curious person and enjoyed asking questions about the world, they instilled in me a deep appreciation for the magnificence of the natural world, and they taught me to own my curiosity and my interests.

How would you explain the main finding of your paper?
This research demonstrates that various stimuli can induce goosebumps, and the body’s response varies depending on the trigger. This phenomenon highlights a shared trait with animals, suggesting that while goosebumps may seem less functional for humans, they reflect a complex interplay of physiological reactions.

What are the potential implications of this finding for your field of research?
This study bridges a gap between the emotional and molecular understanding of goosebumps. By identifying the types of stimuli that trigger goosebumps and their associated autonomic responses, we reveal that goosebumps are more nuanced than previously thought. This insight calls for a more comprehensive approach in future research to fully understand this phenomenon.

Which part of this research project was the most rewarding?
While obtaining the final result is always thrilling, the entire experimental process was highly rewarding. I particularly enjoyed the hands-on aspects of working with participants and the analytical phase in the lab.

What do you enjoy most about being an early-career researcher?
The latent possibilities are what I cherish most. Being able to explore any question and design experiments to answer those questions is incredibly liberating and intellectually stimulating.

What piece of advice would you give to the next generation of researchers?
Always strive to learn something new in your research – I don’t mean learning something new as in the ‘result of the research’, but rather actively learning new methods, new techniques, new ways of thinking about things. Branch out, explore new disciplines, find new collaborators. I find that, if I am just using the same old methods over and over again, things can get boring quickly and my contributions will be limited.

What’s next for you?
While I still have many questions about goosebumps, my current focus is shifting towards proteomics and metabolomics.
If you would like to add a question of your own, enter it here
Did you know some individuals can induce goosebumps merely by thinking about it? This phenomenon, known as ‘voluntarily generated piloerection’, is fascinating and worth a google search. Feel free to reach out if you have this ability or are interested in learning more!

Reference