

V Gowri

Postdoctoral Scholar
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[gowriiii](#)



[V. Gowri](#)

EDUCATION

**Ph.D. in Biological Sciences
(Ecology, Evolution and
Biodiversity)**
Aug 2019 – Jan 2024

National University of Singapore – Department of Biological Sciences
Advisor: Dr. Antónia Monteiro; Co-Advisor: Dr. Ajay Sriram Mathuru
Dissertation: Inheritance of learned novel food odor preferences in *Bicyclus anynana* butterfly larvae
Reared thousands of larvae & butterflies, performed odor-training, behavior analysis, hemolymph transfusions, DNA/RNA extraction and sequencing, and mRNA/sRNA-seq analysis using R-programming

B.Tech. in Biotechnology
Aug 2014 – Apr 2018

Mepco Schlenk Engineering College – Department of Biotechnology
Advisor: Dr. Antónia Monteiro
Co-Advisor: Dr. P. Kannapiran; Mentor: Dr. Emilie Dion
Thesis: Transgenerational inheritance of a learned food preference in the larvae of *Bicyclus anynana* butterflies

PREPRINT & PUBLICATIONS

Gowri, V., Tian, S., Monteiro A. (2024) Brain and gonadal genes are differentially expressed in *Bicyclus anynana* butterfly larvae that learned a heritable novel food odor preference. *bioRxiv* 2024.08.17.608425.

Gowri, V., & Monteiro, A. (2024). The Inheritance of an Acquired Taste: Learning and Passing on New Food Odor Preferences in Butterflies BT - Epigenetics in Biological Communication (G. Witzany (ed.); pp. 387–397). *Springer Nature Switzerland*.

Gowri, V., & Monteiro, A. (2024). Haemolymph transfusions transfer heritable learned novel odor preferences to naïve larvae of *Bicyclus anynana* butterflies. *Biol. Lett.*, 20: 20230595.

Outreach video on YouTube: [Learning an odor](#)

Gowri, V., & Monteiro, A. (2024). Acquired preferences for a novel food odor do not become stronger or stable after multiple generations of odor feeding in *Bicyclus anynana* butterfly larvae. *Ann NY Acad Sci.*, 1531, 84–94.

Murugesan, S.N., Connahs, H., Matsuoka, Y., Das Gupta, M., Tiong, G.J., Huq, M., **Gowri, V.**, Monroe, S., Deem, K.D., Werner, T. and Tomoyasu, Y. (2022) Butterfly eyespots evolved via cooption of an ancestral gene-regulatory network that also patterns antennae, legs, and wings. *Proceedings of the National Academy of Sciences*, 119(8):e2108661119.

Gowri, V. and Monteiro, A. (2021) Inheritance of acquired traits in insects and other animals and the epigenetic mechanisms that break the Weismann barrier. *Journal of Developmental Biology*, 9(4):41.

Chan, I.Z., Ngan, Z.C., Naing, L., Lee, Y., **Gowri, V.** and Monteiro, A. (2021) Predation favours *Bicyclus anynana* butterflies with fewer forewing eyespots. *Proceedings of the Royal Society B*, 288(1951):20202840.

The Strait Times article: [Extra 'eyes' on wings land butterflies in a tight spot](#)

Gowri, V., Dion, E., Viswanath, A., Piel, F.M. and Monteiro, A. (2019) Transgenerational inheritance of learned preferences for novel host plant odors in *Bicyclus anynana* butterflies. *Evolution*, 73(12):2401-2414.

Entomology Today article: [These caterpillars go bananas for fruity smells – and so do their offspring](#)

WORKING EXPERIENCE

- Oct 2024 – Feb 2025 **Assistant Editor**
MDPI Singapore
- Jan 2019 – Jun 2019 **Research Assistant**
Monteiro Lab, National University of Singapore
Assisted a [Postdoctoral research](#) on butterfly eyespot evolution using PCR, CRISPR-Cas9, embryo injections, antibody staining, microscopy imaging and butterfly rearing techniques.

TEACHING ASSISTANT EXPERIENCE

Undergraduate Biological Sciences modules at the National University of Singapore:

- Sem 2 AY2019/2020 Behavioral Biology
Sem 2 AY2019/2020 Ecology and the Environment & Evolutionary Biology
Sem 1 AY2019/2020 Evolutionary Biology

STUDENT PROJECT SUPERVISION

- Jun – Jul 2022 **NUS AMGEN Scholar Program**
Student: Fuminori Tanizawa (Harvey Mudd College)
Project: Behavioral effects of odorant injection on larvae and eggs of *Bicyclus anynana*
- May – Jul 2021 **Summer Project**
Student: Joshua Choo Song Yang (Yale NUS College)
Project: Behavioral and physical effects of isoamyl acetate injections on *Bicyclus anynana* larvae and their offspring

CONFERENCES

- 12 Jul 2023 **Biology of Butterflies 2023**
Czech University of Life Sciences Prague
Poster presentation: Novel odor learning across generations and inheritance of learned odor preference via hemolymph transfusions
1st Best student poster
- 15 Dec 2022 **27th Biological Sciences Graduate Congress 2022**
Chulalongkorn University
Oral presentation: Transgenerational inheritance of learned novel odor food preference via hemolymph transfusions from odor-exposed *Bicyclus anynana* butterfly larvae
- 8 Nov 2019 **24th Biological Sciences Graduate Congress 2019**
Universiti Malaya
Poster presentation: Transgenerational inheritance of a learned food preference in the larvae of *Bicyclus anynana* butterflies
Best poster presenter – Theme 3: Biodiversity, Ecology & Systematic
- 27 Sep 2019 **Neuroscience Singapore 2019**
Yale NUS College
Poster presentation: Transgenerational inheritance of a learned food preference in the larvae of *Bicyclus anynana* butterflies

AWARDS

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| 4 May 2023 | Faculty of Science PhD Conference Award
National University of Singapore
FPCA Certificate and up to S\$3500 by reimbursement of conference-related expenses |
| 2019 – 2023 | NUS Research Scholarship (NUS-YALE) |

INVITED TALKS

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| 19 May 2023 | PhD Information Session for Life Sciences Majors
National University of Singapore |
| 18 Apr 2022 | PhD Sharing Session
Mepco Schlenk Engineering College |