Chloé Lahondère

Thermal Biology, Eco-Physiology and Neuroethology of Disease Vector Insects

Associate Professor
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EDUCATION

2009-2012 **PhD** in Life Sciences – Entomology
University François Rabelais, Tours, France (*With highest honors*)

2007-2009 **Master of Science** in Population Biology and Insect Science
University François Rabelais, Tours, France (*Rank: 1/35, with honors*)

2004-2007 **Bachelor of Science** (licence) in Integrative & Evolutive Biology
University François Rabelais, Tours, France (*With honors*)

RESEARCH POSITIONS and EXPERIENCES

2024-present **Associate Professor**
Dept. of Biochemistry, Virginia Tech, Blacksburg, USA
Affiliated Faculty Fralin Life Sciences Institute (2017-present)
Affiliated Faculty Global Change Center (2018-present)
Affiliated Faculty BIOTRANS program (2018-present)
Affiliated Faculty Dept. of Entomology (2020-present)
Affiliated Faculty CeZAP (2020-present)

2020-2024 **Assistant Professor**
Dept. of Biochemistry, Virginia Tech, Blacksburg, USA

2017-2020 **Research Assistant Professor**
Dept. of Biochemistry, Virginia Tech, Blacksburg, USA

2014-2017 **Research Associate**
Advised by Jeffrey Riffell
Dept. of Biology, University of Washington, Seattle USA

2014 **Research Assistant**
Advised by Lauren Buckley
Dept. of Biology, University of Washington, Seattle USA

2013 **The Company of Biologist Visiting Scholar**
Advised by Jeffrey Riffell
Dept. of Biology, University of Washington, Seattle USA

2009-2012 **Graduate Researcher** (PhD degree)
Advised by Claudio Lazzari
University François Rabelais, Tours, France

2008-2009 **Graduate Researcher** (MSc degree)
Advised by Claudio Lazzari
Université François Rabelais, Tours, France

2007 **Undergraduate Researcher** (BSc degree)
Advised by Michael Greenfield
Université François Rabelais, Tours, France

FUNDING *(not highlighting pending grants)*

Current grants:

CALS Strategic Plan Advancement $57,770 2024-25
Unraveling the Influence of Arbovirus Infection on Mosquito Host-Seeking Behavior (*role*: Co-PI, Gross PI, Paulson, Co-PI, Vinauger, Co-PI)

NSF Career-Life Balance supplement $20,320 2024
(*role*: PI)

NSF-MRI $501,183 2021-24
Acquisition of a Chemical Ionization Mass Spectrometer for Measuring Organic Compounds at the Interfaces of Earth's Systems (*role*: Co-PI – Isaacman-VanWertz, PI, Morris, Co-PI, Carey Co-PI, Gohlke Co-PI)

NSF-IOS $1,031,547 2021-25
Biomechanical constraints and trade-offs between sugar and blood feeding in mosquitoes (*Role*: PI -Vinauger, Co-PI, Stremler, Co-PI, Socha, Co-PI)

NIH-NIAID R01 $2,742,882 2021-26
Neural and molecular rules of mosquito olfactory rhythms (*Role*: Co-I, Vinauger, PI, Tu, Co-I)

NSF REU-site $371,154 2020-24
REU Site: Ecology, Evolution, and Behavior Field Research at Mountain Lake Biological Station (*Role*: Senior Personnel - Nagy, PI, Brodie Co-PI)

Past grants and fellowships:

CALS Strategic Plan Advancement $43,000 2023-24
How do mosquito-associated risks vary in Western Virginia? (*role*: Co-PI, Eastwood PI)

CeZAP $19,749 2022-23
The role of *Culex territans* mosquitoes and their amphibian hosts in the West Nile virus transmission cycle (*role*: PI - Weger-Lucarelli, Co-PI)

CeZAP $20,000 2022-23
Employing avian and arthropod surveillance to predict pathogen emergence in Virginia (*role*: Co-PI - Auguste, PI, Escobar, Co-PI)

Department of Biochemistry SEED grant $5,000 2021-22
(*Role*: PI)

ICAT mini SEAD grant $3,000 2021-22
Virtual Reality Scents (*Role*: Co-PI - Tucker, PI)

Faculty mentoring grant $1,500 2021-22
(*Role*: PI)

***eLife* Travel grant** $1,000 2019

The Fralin Life Science Institute $10,000 2019
Evolution of blood-feeding in mosquitoes (*Role*: PI)

Global Change Center ISCE - Fralin Institute Climate change and the dynamics of mosquito populations in Virginia (*Role*: PI – Vinauger, Co-PI; Escobar, Co-PI; Patton, Co-PI)	$17,300	2018-19
MicroFEWHS – Fralin Institute Development of an unmanned aircraft system (UAS) to collect mosquitoes from remote areas (*Role*: PI – Schmale, Co-PI)	$3,500	2018-19
The Eppley Foundation for Research Sugar feeding in mosquitoes: a neglected aspect of their biology and a potential tool for their control (*Role*: PI)	$23,097	2018-19
Margaret Walton Fellowship for Mountain Lake	$493	2018
University of Washington, Department of Biology Travel Grant	$1,000	2016
***The Journal of Experimental Biology* Travelling Fellowship**	£2,300	2012
Bed bugs physiology and behavior research (*Role*: Co- PI - Lazzari PI)	8000€	2012
Research and career development grant from IRBI / CNRS Tours, France	600€	2012

HONORS and AWARDS

CALS researcher of the month	2024
Entomological Society of America Caregiver Grant	2024
2021 CALS Diversity and Inclusion Service Award	2021
2020 Department of Biochemistry Service / Outreach Award Nominee	2020
Board of Reviewers – MDPI Insects	2020
F1000 recommendation for *Current Opinion in Insect Science* paper	2019
Sigma Xi - The Scientific Research Honor Society - Full membership	2019
2018 Department of Biochemistry Research Award	2018
"Best presentation" award - UWPA research symposium	2016
University of Washington Undergraduate Research Mentor Nominee	2016
University of Washington Undergraduate Research Mentor Nominee	2015
F1000 recommendation for 2012 *Current Biology* paper	2012
“Centenary Medal”	2009

International Symposium on the Centenary of the Discovery of Chagas Disease, Rio de Janeiro, Brazil

PUBLICATIONS (**: undergraduate student **: graduate student ***: post-doc)*

Journal Articles (Peer-reviewed):

39 Lou, L.**, Tu, Z.J., **Lahondère C.** and C. Vinauger (2024). Rhythms in insect olfactory systems. *Journal of Experimental Biology**.***

38 Reinhold, J.M*** and **C. Lahondère** (2024). Mosquitoes feeding on ectothermic hosts: from host seeking to pathogen transmission. *Current Opinion in Insect Science*.

37 Shannon D.M., Richardson N.A., **Lahondère C.** and D. Peach. (2024). Mosquito floral visitation and pollination. *Current Opinion in Insect Science*.

36 Wynne, N.E.**, Applebach, E., Chandrasegaran, K., Ajayi, O.M., Chakraborty, S., Bonizzoni, M., **Lahondère, C.**, Benoit, J. and Vinauger, C. (2024). *Aedes albopictus* colonies from different geographic origins differ in their sleep and activity levels but not in the time of peak activity. *Medical and Veterinary Entomology*.

35 Wangrawa D.W., Waongo A., Traore F., Llboudo Z., Upshur F.**, Borovsky D., **Lahondère C.**, Badolo A., Sanon A Behavioral response of *Aedes aegypti* (Diptera: Culicidae) to essential oils

of *Cymbopogon nardus* (L.) *Eucalyptus camaldulensis* (Dehnh) and their blend in Y-maze olfactometer. *Frontiers in Tropical Diseases*. 5.

34 Carlassara M., Khorramnejad A., Oker H.**, Bahrami R., Nabor Lozada-Chávez A., Mancini M.V, Body J.A., **Lahondère C.** and M. Bonizzoni. Population-specific responses to developmental temperature in the arboviral vector *Aedes albopictus*: implications for climate change. *Global Change Biology*. 30(3), e17226.

33 Upshur F.I.**, Fehlman M.*, Pariskh V.* and **C. Lahondère**[#] (2023). Sugar feeding by invasive mosquito species on ornamental and wild plants. *Scientific Reports*. 13(1), 22121.

32 Wangrawa D.W., Waongo A., Traore F., Llboudo Z., Upshur F.**, Borovsky D., **Lahondère C.**, Badolo A., Sanon A. (2023). Insecticidal and anti-feeding activities of *Cymbopogon schoenanthus, Lippia multiflora, and Ocimum americanum* essential oils against larvae and pupae of *Spodoptera frugiperda* (Lepidoptera: Noctuidae). *Acta Scientific Agriculture* 7.11: 50-62.

31 Reinhold J.**, Halbert E.*, Roark M.*, Smith S., Stroh K.M., Siler C.D., McLeod D. and **C. Lahondère**. (2023). The role of *Culex territans* mosquitoes in the transmission of *Batrachochytrium dendrobatidis* to amphibian hosts. *Parasites and Vectors.* 16(1), 424.

30 **Lahondère C.** (2023). Recent advances in insect thermoregulation. *Journal of Experimental Biology.* 226(18), jeb245751.

29 **Lahondère C.**, Vinauger C., Liaw J.E.*, Joiner J.M.*, Tobin K.K.S* and J. Riffell. (2023). The effect of temperature on mosquito olfaction. *Integrative and Comparative Biology.* 63:2, 356–367.

28 VanderGiessen M.**, Tallon, A***, Damico B.*, **Lahondère C.** and C. Vinauger. (2023). Soap application alters mosquito-host interactions. *iScience*. (106667).

27 Roth M.A**, **Lahondère C.** and Gross A.D. (2023) Discovering *Aethina tumida* Responses to Attractant and Repellent Molecules: A Potential Basis for Future Management Strategies. *Pesticide Biochemistry and Physiology*. 192:105386.

26 Wolff G.H., **Lahondère C.**, Vinauger C. and J.A. Riffell. (2023). Neuromodulation and Differential Learning Across Mosquito Species. *Proceedings of the Royal Society B*. 290(1990), 20222118.

25 Benoit J.B., **Lahondère C.**, Attardo G.M., Michalkova V., Oyen K., Xiao Y. and S. Aksoy. (2022). Warm blood meal increases digestion and milk protein production to maximize reproductive output for the tsetse fly, *Glossina morsitans. Insects.* 13(11):997.

24 Kuchinsky S., Marano J., Hawks S., Loessberg E., Honaker C., Siegel P., **Lahondère C.**, LeRoith T., Weger-Lucarelli J., and N. Duggal. (2022). North American house sparrows are competent for Usutu virus transmission. *mSphere*. e00295-22.

23 **Lahondère C.** (2022). Mosquito electroantennogram recordings. In “Laboratory mosquito rearing, behaviour, physiology, and neuroscience”, *Cold Spring Harbor Protocols*. doi:10.1101/pdb.prot107871

22 **Lahondère C.** (2022). Mosquito electroantennography. In “Laboratory mosquito rearing, behaviour, physiology, and neuroscience”, *Cold Spring Harbor Protocols*.doi:10.1101/pdb.top107679

21 Wangrawa D.W., Ochomo E., Upshur F.**, Zanré N., Borovsky D., **Lahondère C.**, Vinauger C., Badolo A. and A. Sanon. (2022). Essential oils and their binary combinations have synergistic and antagonistic insecticidal properties against *Anopheles gambiae* s. l. (Diptera: Culicidae). *Biocatalysis and Agricultural Biotechnology*, 42(102347).

20 **Lahondère C.** and M. Bonizzoni (2022). Thermal biology of invasive *Aedes* mosquitoes in the context of climate change. *Current Opinion in Insect Science*. (51):100920.

19 Reinhold J.M.**[#], Chandrasegaran K.[#], Oker H.M.*[#], Crespo J.E., Vinauger C. and **C. Lahondère**. (2022). Species-specificity in thermopreference and CO2-gated heat-seeking in *Culex* mosquitoes. *Insects*. 13(1), 92 ([#] Equal contribution)

18 Fryzlewicz L.**, VanWinkle A.* and **C. Lahondère**. (2021). Development of an attractive toxic sugar bait for the control of *Aedes. j. japonicus*. *Journal of Medical Entomology*. 59(1): 308-313.

17 Lazzari C.R., Fauquet A.**, **Lahondère C.**, Pereira M.H. and R. Araujo. (2021). Ticks perform evaporative cooling during blood-feeding. *Journal of Insect Physiology,* 130(104197).

16 **Lahondère C.** (2021). A step-by-step guide to mosquito electroantennography. *JOVE*. e62042.

15 Bates T.A, Chuong C., Marano J., Waldman A., Klinger A., Reinhold J.M.**, **Lahondère C.** and J. Weger. (2021). American *Aedes japonicus japonicus*, *Culex pipiens pipiens*, and *Culex restuans* mosquitoes have limited transmission capacity for a recent isolate of Usutu virus. *Virology*. 555: 64-70.

14 Reinhold J.M.**, Shaw R.* and **Lahondère C.** (2021). Beat the heat: *Culex quinquefasciatus* regulates its body temperature during blood-feeding. *Journal of Thermal Biology*. 96: 102826.

13 Chandrasegaran K., **Lahondère C.**, Escobar L.E. and Vinauger C. (2020) Mosquito ecology, behavior, and disease transmission. *Trends in Parasitology.* 36(4): 393-403.

12 **Lahondère C.**, C. Vinauger, R.P. Okubo, G. Wolff, J.K. Chan, O.S. Akbari, J.A. Riffell. (2020). The olfactory basis of orchid pollination by mosquitoes. *Proceedings of the National Academy of Sciences*. 201910589.

11 Upshur I.F.**, Bose E.A*, Hart C.* and **C. Lahondère.** (2019). Temperature and sugar feeding effects on *Aedes aegypti* mosquitoes' activity *Insect*s. 10(10): 347.

10 Afify A., Betz J.F., Riabinina O., **C. Lahondère**, C.J. Potter. (2019). Commonly used insect repellents hide human odors from *Anopheles* mosquitoes. *Current Biology*. 29:1-12.

9 Benoit J.B., Lazzari C.R., Denlinger D.L. and **C. Lahondère.** (2019). Thermoprotective adaptations are critical for arthropods feeding on warm-blooded hosts. *Current Opinion in Insect Science*. (34):7-11. *Recommended by the F1000*.

8 Reinhold J.**, Lazzari C.R. and **C. Lahondère.** (2018). Effects of temperature on *Aedes aegypti* and *Aedes albopictus*: a review. *Insects 9(4), 158*.

7 Lazzari C.R., Fauquet A.** and **Lahondère C.** (2018). Keeping cool: kissing bugs avoid cannibalism thermoregulating. *Journal of Insect Physiology.* (107):29–33.

6 Vinauger C.+, **C. Lahondère+**, G.H. Wolf, L.T. Locke*, J.E. Liaw*, J.Z. Parrish, O.S. Akbari, M.H. Dickinson and J.A. Riffell (2018). Dopamine modulation of host learning in *Aedes aegypti* mosquitoes. *Current Biology.* 28(333–344). (+: co first authorship)

5 **Lahondère C.**, Insausti T., Paim RMM, Luan X., Belev G., Pereira M.H., Ianowski J.P. and C.R. Lazzari (2017). Countercurrent heat exchange and thermoregulation during blood-feeding in kissing bugs. *eLife. 2017; 6:e26107.*

4 Lutz E.K.**, **Lahondère C.**, Vinauger, C. and J.A. Riffell (2017). Olfactory learning and chemical ecology of olfaction in disease vector mosquitoes: A life history perspective. *Current Opinion in Insect Science*. 20:75-83.

3 Vinauger C., **Lahondère C.**, Cohuet A., Lazzari C.R. and J.A. Riffell (2016). Learning and memory in disease vector insects. *Trends in Parasitology.* 32(10):761–771.

2 **Lahondère C.** and C.R. Lazzari (2015). Thermal effect of blood feeding in the telmophagous fly *Glossina morsitans morsitans*. *Journal of Thermal Biology*. 48:45-50.

1 **Lahondère C.** and C.R. Lazzari (2012). Mosquitoes cool down during blood feeding to avoid overheating, *Current Biology*, 22(1): 40-45.
Recommended by the F1000.

Under review / in revision / preprints (not including articles in preparation):

40 **Lahondère C.**, Buradino M.** and Lazzari C.R. (2019). Thermoregulation in *Rhodnius prolixus*: heart activity and heterothermy. (*in revision*) *BioRxiv*, 685305.

Book Chapters (Peer-reviewed):

2 Pereira M.H., Paim R.M.M., **Lahondère C.** and C.R. Lazzari (2017). Heat shock proteins and blood-feeding in arthropods. *In*: Asea A., Kaur P. (eds) Heat Shock Proteins in Veterinary Medicine and Sciences. Heat Shock Proteins, vol 12. Springer.

1 **Lahondère C.** and C.R. Lazzari (2013). Thermal stress and thermoregulation in mosquitoes. In *Anopheles* mosquitoes - New insights into malaria vectors, *ed.* Sylvie Manguin. IntechOpen. ISBN 980-953-307-550-6.

As editor:

1 **Lahondère C.** and Tu Z. (2020). Editorial overview: vectors and medical and veterinary entomology. *Current Opinion in Insect Science.*

Patent:

Patent Application 17/431,869 filed 8/18/2021: Mosquito attractant compositions (Jeffrey A. Riffell, Chloé Lahondère & Clement Vinauger).

INVITED TALKS and PRESENTATIONS (*O: oral presentation P: poster)* – ***does not highlight contributed or students' talks***

2024

Lahondère C. (O) Sugar feeding in mosquitoes: a neglected aspect of their biology and tool for their control. *Promotion Seminar, Department of Biochemistry, Virginia Tech, Blacksburg, VA, USA* (*February 26th - Tenure Talk*)

Lahondère C. (O) Exploring the role of *Culex territans* mosquitoes in transmitting pathogens to frogs. *Center for Emerging, Zoonotic and Arthropod-borne Pathogens*, *Distinguished Speaker Seminar Series in Infectious Diseases. Blacksburg, VA, USA (March 21st – invited talk)*.

Lahondère C. (O). Heat as a heat seeking cue and a potential threat for blood-sucking insects. *Department of Entomology, University of Maryland Seminar Series, MD, USA (April 26th – invited talk)*.

Lahondère C. (O). Biomechanical constraints and trade-offs between sugar and blood feeding in mosquitoes. *Entomology 2024*, *Entomological Society of America*, Phoenix, AZ, USA (November 12th).

2023

Uphsur F., Felhman M., Parikh V., and **Lahondère C.** (O) Sugar feeding by invasive mosquito species on ornamental and wild plants. *Entomology 2023*, *Entomological Society of America, National Harbor, MD, USA* (*November 7th*).

Lahondère C. (O) Sugar feeding in mosquitoes: a neglected aspect of their biology and a potential tool for their control. *Virtual Vector Biology Seminar Series* (*May 3rd – invited talk)*

Lahondère C. (O) Heat as a heat seeking cue and a potential threat for blood-sucking insects. *Engineering Mechanics seminar series, Blacksburg, VA, USA (March 1st – invited talk)*

Lahondère C. (O) Species-specificity in thermopreference and CO_2-gated heat-seeking in *Culex* mosquitoes. *SICB+ (January - online)*

2022

Lahondère C. (O). Sugar feeding in mosquitoes: a neglected aspect of their biology and a potential tool for their control *Mountain Lake Biological Station seminar, Pembroke, VA, USA (July 14th – invited talk)*

Lahondère C. (O). Personal care products alter mosquito-host interactions *ISCE-APACE Joint Meeting, Kuala Lumpur, Malaysia (August 10th– invited talk)*

Lahondère C. (O) Species-specificity in thermopreference and CO2-gated heat-seeking in *Culex* mosquitoes. *Entomology 2022*, *Entomological Society of America*, *Vancouver, BC, Canada (November – invited talk)*

2021

Fryzlewicz L., VanWinkle A. and **Lahondère C.** (O). Development of an attractive toxic sugar bait for the control of *Aedes. j. japonicus*. *Entomology 2021, Entomological Society of America, Denver, CO, USA – presented online (November).*

Lahondère C. (O). Development of an attractive toxic sugar bait targeting *Aedes. j. japonicus*. *ACS - Advances in Vector Control and Insecticide Science Symposium*, *Atlanta, GA, USA (August 24th – invited talk).*

2020

Lahondère C. In cold-blood: deciphering the mechanisms underlying mosquito-frog interactions (O) *OARDC meeting: Integrative mosquito biology: from molecules to ecosystems, Wooster, OH, USA (Cancelled in May 2020 due to COVID 19 – invited talk)*

Lahondère C. The sweet tooth of mosquitoes: leveraging knowledge on sugar feeding for their control (O). *VTLSS Seminar series*, *Blacksburg, VA, USA (October 9th – invited talk)*

Lahondère C. Mosquito eco-physiology and thermal biology at Virginia Tech (O). *Bennett College Seminar Series, (November 12th – invited talk)*

Fryzlewicz L., VanWinkle A. and **Lahondère C.,** (O). Development of an attractive toxic sugar bait for the control of *Aedes. j. japonicus*. *Entomology 2021, Entomological Society of America, Denver, CO, USA – presented online (November).*

2019

Lahondère C. Eco-physiology and neuroethology of disease vector insects (O). *Entomology Departmental Seminar series*, *Blacksburg, VA, USA (March 28th – invited talk)*

Lahondère C., Hanlon R. and D. Schmale. Development of an unmanned aircraft system (UAS) to collect mosquitoes from remote areas. *2019 Micro FEWHS mini symposium, Blacksburg, VA, USA (May 6th – invited talk).*

Lahondère C. Eco-physiology and neuroethology of disease vector insects (O) *Le Studium Conference: New avenues for the behavioral manipulation of disease vectors, Tours, France (May 22nd – invited talk)*

Lahondère C. Climate change and the dynamics of mosquito populations in Virginia (O) *Carilion Climate Change Conference, Roanoke, VA, USA (October 5th – invited talk)*
Lahondère C. "Some like it hot"… and sweet (O) *Seminar series*, *JMU, VA, USA (October 25th – invited talk)*
Lahondère C. From pollinator to disease vector: a journey through the life of mosquitoes (O) *Promotion Seminar, Department of Biochemistry, Virginia Tech, Blacksburg, VA, USA (November 7th – invited talk)*
Upshur I., Bose E., Hart C. and **Lahondère C.** Temperature and sugar feeding effects on *Aedes aegypti* mosquitoes' activity (O) *Entomological Society of America*, *Saint Louis, MO, USA (November*)

2018

Lahondère C. Eco-physiology and neuro-ethology of disease vector insects (O) *OARDC meeting: Integrative mosquito biology: from molecules to ecosystems, Wooster, OH, USA (April 13th – invited talk)*
Lahondère C. Eco-physiology and neuro-ethology of disease vector insects (O) *Mountain Lake Biological Station seminar, Pembroke, VA, USA (June 5th – invited talk)*
Lahondère C. Effects of temperature on olfactory behavior in mosquitoes (O) *ECRO XXVIII Congress, Würzburg – Germany (September 8th– invited talk)*
Lahondère C. Some like it hot: thermal biology of disease vector insects (O) *Entomology 2018, ESA's 66th Annual Meeting, Vancouver, BC, Canada (November 14th – invited talk,* MUVE Section Symposium: Arthropod Genomics and Molecular Biology: What's New!)

2017

Lahondère C. Thermal Biology of disease vector insects (O) *Biochemistry Departmental Seminar, Virginia Tech, Blacksburg, VA, USA (July 20th – invited talk)*
Lahondère C., Vinauger C., Okubo R. and J.A. Riffell. Orchid pollination by snow mosquitoes (O) *Entomology 2017, ESA's 65th Annual Meeting, Denver, CO, USA*
Lahondère C., Liaw J.E., Tobin K., Joiner J.M., Vinauger C. and J.A. Riffell. Effect of temperature on olfactory behavior in mosquitoes (**Highlighted P**) *Entomology 2017, ESA's 65th Annual Meeting, Denver, CO, USA*
Lahondère C. Effect of temperature on olfactory behavior in mosquitoes (O) *Post-doctoral Symposium – Seattle, WA, USA*

2016

Lahondère C. What makes mosquitoes attracted to *Platanthera* orchids? (O) *UWPA Annual Symposium 2016 - Seattle, WA, USA*
Lahondère C., Vinauger C., Okubo R. & J.A. Riffell. The pollination ecology of *Platanthera* orchids by snow mosquitoes (O) *ICE 2016 – XXV International Congress of Entomology, Orlando, FL, USA*
Vinauger C., **Lahondère C.**, Locke L.T, Liaw J.E. & J.A. Riffell. Aversive learning in the disease vector mosquito *Aedes aegypti* (O) *ICE 2016 – XXV International Congress of Entomology, Orlando, FL, USA*
Liaw J.E., **Lahondère C.**, Vinauger C. & J.A. Riffell. Aversive learning in *Aedes aegypti* mosquitoes (O) *19th Annual Undergraduate Research Symposium, Seattle, WA, USA*
Lahondère C., Vinauger C., Wolff G., Locke L.T., Liaw J.E., Parrish J.Z., Akbari O., Dickinson M.H. & J.A. Riffell. Neuromodulation of olfactory learning in *Aedes aegypti* mosquitoes (P) *NIFTI (Nature Inspired Flight Technologies and Ideas) – SOAR meeting, Baltimore, MA, USA*
Lahondère C. What makes mosquitoes attracted to *Platanthera* orchids? (O) *Post-doctoral Symposium – PechaKucha, Seattle, WA, USA*
Lahondère C., Vinauger C., Okubo R. & J.A. Riffell. What makes mosquitoes attracted to *Platanthera* orchids? (P) *SICB Annual Meeting, Portland, OR, USA*

C. Vinauger, **Lahondère C.**, Lutz E.K., Locke L.T & J.A. Riffell. Olfactory learning in the vector mosquito *Aedes aegypti* (O) *SICB Annual Meeting, Portland, OR, USA*

2015

Liaw J.E., **Lahondère C.**, Vinauger C. & J.A. Riffell. Exploring learning abilities of disease vector mosquitoes (P) *18th Annual Undergraduate Research Symposium, Seattle, WA, USA*
Joiner J., **Lahondère C.**, & J.A. Riffell. Mosquito olfaction: effects of ambient temperature (P) *18th Annual Undergraduate Research Symposium, Seattle, WA, USA*

2014

Lahondère C., Insausti T., Ianowski J. & C.R. Lazzari. Keeping cool: Thermoregulation during feeding in kissing bugs (O). *Entomology 2014, ESA's 62nd Annual Meeting, Portland, OR, USA. (November 16th – invited talk, Symposium: MUVE SS: Triatominae from Genes to Populations: The Road to New Insights and Challenges on the Horizon of Vector Ecology)*

2013

Lahondère, C. Thermal stress and thermoregulation in haematophagous insects (O) *Max Planck Institute of Neurobiology, Martinsreid, Germany*

2012

Lahondère, C. Thermal stress and thermoregulation in haematophagous insects (O) *"Kikikose", Tours, France*
Lahondère, C. Thermal stress and thermoregulation in haematophagous insects (O) *University of Washington, Seattle, WA, USA*

2011

Lahondère, C. Rocking behavior in Phasmatodea (P) *Colloque SFECA (Société Française pour l'Etude du Comportement Animal), Tours, France*
Fresquet N., **Lahondère C.** & C.R. Lazzari. Modulation de la réponse d'extension du proboscis par l'interaction des températures de la cible et de l'environnement chez un insecte hématophage (P) *Colloque SFECA (Société Française pour l'Etude du Comportement Animal), Tours, France*
Fresquet N., **Lahondère C.** & C.R. Lazzari. Role of the thermal background on the response to heat in *Rhodnius prolixus* (P) *The Sixth International Symposium on Molecular Insect Science, Amsterdam, the Netherlands*
Lahondère C., Insausti T. & C.R. Lazzari. Handling of thermal stress associated with feeding in haematophagous insects (O + P) *European PhD Network « Insect Science » Tours, France*

2010

Lahondère, C. & C.R. Lazzari. Stress thermique et thermorégulation chez les insectes hématophages (P) *16ème Colloque de Biologie de l'Insecte, Lyon, France*
Lahondère, C. & C.R. Lazzari. Thermal stress and thermoregulation in haematophagous insects (P) *Sensory Ecology: an international course for postgraduate students. Lund, Sweden*

2009

Lahondère, C. How haematophagous insects avoid excessive heating during feeding? (O) *INRA Versailles, France*
Lazzari, C.R., **Lahondère, C.**, Amino, R. & T.C. Insausti. Keeping cool: how blood-sucking insects avoid excessive warming during feeding. (P) *International Symposium on the Centenary of the Discovery of Chagas Disease, Rio de Janeiro, Brazil*
Lahondère, C. Stress thermique et thermorégulation chez les insectes hématophages (O) *Journée de l'IRBI (annual meeting), Tours, France*

STUDENTS and POST-DOC MENTORING (*current lab members in bold*)

Laboratory and Field Technicians

2024-present **Colby Renshaw** (Lab Tech, Virginia Tech) Co-mentored with C. Vinauger & S. Agrawal
2024-present **Shajaesza Diggs** (Lab Tech, Virginia Tech) Co-mentored with C. Vinauger
2022-present **Seyed Jalil Pasha Mirlohi** (Lab Specialist, Virginia Tech)
2021-2022 Shajaesza Diggs (Lab Tech, Virginia Tech) Co-mentored with C. Vinauger
2021 Darren Dougharty (Lab Tech, Virginia Tech)
2020 Zachary Baker (Summer Lab Tech, Virginia Tech)

Post-doctoral Scholars

2023-2024 Joanna Reinhold (Post-doc, Virginia Tech)
2021-2022 Anaïs Tallon (Post-doc, Virginia Tech)

Graduate students

2024-present **James Moloney** (PhD, Biochemistry, Virginia Tech)
2024-present **Clara Stahlmann Roeder** (PhD, Biology, UVA) Co-mentored with B. Brodie
2022-2024 Shajaesza Diggs (MS, Biochemistry, Virginia Tech) Co-mentored with C. Vinauger
2021-2024 Brittany Hart (PhD, Biochemistry, Virginia Tech – GTS mentor)
2021-2023 Helen Oker (BS-MS, Biochemistry, Virginia Tech)
2020-2021 Silvère Giraud (MSc, Université de Tours, France) Co-mentored with C. Lazzari
2020-2024 Forde Upshur (PhD, Virginia Tech)
2019-2021 Lauren Fryzlewicz (BS-MSc, Virginia Tech)
2019-2021 Morgen VanderGiessen (MSc, Virginia Tech) Co-mentored with C. Vinauger
2018-2023 Joanna Reinhold (PhD, Virginia Tech)
2018-2020 Forde Upshur (MSc, Virginia Tech)

Undergraduate students

2024-present **Gavyn Sanford** (Biological Sciences and Psychology)
2023-present **Sagia Singh** (Biochemistry, Virginia Tech)
2023 Zachary Lowe (Biochemistry, Virginia Tech)
2023 Isabel Fluegel (Biochemistry, Virginia Tech)
2023-2024 Eva Snaith (Biochemistry and Biology, Virginia Tech)
2023-present **Helle Aronson** (Biochemistry, Virginia Tech)
2022-present **Katelyn Domke** (Biochemistry and Chemistry, Virginia Tech)
2022 Taj Valliani (Biochemistry and Chemistry, Virginia Tech)
2022 Rachel Porter (Biological Systems Engineering / Entomology, Virginia Tech)
2022 Danielle David (Biochemistry and Chemistry, Virginia Tech)
2021-2022 Louna Abdalla (Biochemistry, Virginia Tech)
2021-2022 Vansh Parikh (Biochemistry, Virginia Tech)
2021-2022 Christopher Logan (Biological Sciences, Virginia Tech)
2021-2022 Sydney Fogleman (Biological Sciences, Virginia Tech)
2020-2021 Ashlynn VanWinkle (Biochemistry, Virginia Tech)
2020 Ross Choate (Biological Sciences, Virginia Tech)
2019-2020 Aley Savory (Chemical engineering, Virginia Tech)
2019-2020 Ryan Shaw (Biological Sciences, Virginia Tech)
2018-2020 Sarah Tartabini (Biochemistry, Virginia Tech)
2018-2019 Elizabeth Bose (Biochemistry and Clinical Neuroscience, Virginia Tech)
2018-2019 Cameron Hart (Biochemistry, Virginia Tech)
2016-2017 Kennedy Tobin (Neurobio, UW Biology, Seattle)

2015-2017 Korosh Moosavi (Biochemistry, UW Biology, Seattle)
2015-2017 Assel Shardarbekova (Neurobio, UW Biology, Seattle)
2014-2017 Jessica E. Liaw (Biology, UW Biology, Seattle)
2014-2016 Lauren T. Locke (Neurobio, UW Biology, Seattle)
2014-2015 Jillian M. Joiner (Biology, UW Biology, Seattle)
2012 Cindy Laurence (B.Sc. level: Licence 3rd year, IRBI, Tours)
2010-2011 Maurane Buradino (B.Sc. level: Licence 3rd year and M.Sc. level: Master 1st year, IRBI Tours)

Summer interns (REU and Fellows)

2024 Helle Aronson (SURF Fellow, Virginia Tech)
2024 Sarah Garcia (Summer MLBS REU, Cornell University)
2024 Simone de Montigny (Summer MLBS REU, Beloit University)
2023 James Moloney (Summer MLBS REU, Truman State University)
2023 Bella Roeske (Summer MLBS REU, Emory University)
2022 Aqsa Fazal (Summer GCC / SURF student, Hollins College)
2022 Ella Halbert (Summer MLBS REU, Oberlin College)
2021 Megan Roark (Summer MLBS REU student, UWise)
2021 Mik Felhman (Summer VT REEL REU student, Penn State University)

National and International Visitors

2024 (Fall) Ayda Khorramnejad (Post-Doc, Bonizzoni lab, University of Pavia, Italy)
2021 (Fall) Martina Carlassara (PhD student, Bonizzoni lab, University of Pavia, Italy)
2021 Dimitri Wangrawa (Fulbright Scholar, University Norbert Zongo, Burkina Faso)

GRADUATE STUDENT COMMITTEES (*current in bold – does not include students in my lab*)

2024-present **Thomas Vaden** (PhD student – Neuroscience – Advisor: Lina Ni)
2024-present **Silvère Giraud** (PhD student, IRD France – Advisors: David Carrasco (IRD) and Lise Roy (CEFE))
2024-present **Bruna Ciuffa** (PhD student – Biological Sciences, UC OH – Advisor: Joshua Benoit)
2024-present **Laura Gil Pineda** (PhD student – Biochemistry – Advisor: Justin Lemkul)
2022-present **Yifan Feng** (PhD student – Entomology, Advisor: Maria Sharakova)
2022-present **Lan Lou** (PhD student - Biochemistry, Advisor: Clément Vinauger)
2022-2024 Shajaesza Diggs (MS student - Biochemistry, co-advised with Clément Vinauger)
2022-2024 Liyan Zhang (MS student, Biocheistry, Advisor: Jinsong Zhu)
2021-2023 Suzanne Pinar (PhD student, Entomology, Advisor: Scotty Yang and Roger Schuerch)
2021-2023 Helen Oker (BS-MSc student, Biochemistry - Committee Chair)
2021-2024 Lindsey Faw (PhD student - Entomology, Advisor: Gillian Eastwood)
2020-2022 Tam NGuyen (PhD student - Biochemistry, Advisor: Daniel Slade)
2020 Tahmina Ahmed (PhD student - Biochemistry, Advisor: Jinsong Zhu)
2019-2021 Morgen VanderGiessen (MSc student, Biochemistry) Co-mentored with C. Vinauger
2019-2021 Lauren Fryzlewicz (BS-MSc student, Biochemistry - Committee Chair)
2019-2022 Morgan Roth (PhD student – Entomology – Advisor: Aaron Gross)
2018-2022 Nicole Wynne (PhD student – Biochemistry – Advisor: Clément Vinauger)
2018-2023 Joanna Reinhold (PhD student - Biochemistry - Committee Chair)
2018-2024 Forde Upshur (MSc & PhD student- Biochemistry - Committee Chair)
2018-2020 Megan Richardson (PhD student - Biochemistry - Advisor: Jinsong Zhu)
2018-2019 Chris Yoo (MSc student - Biochemistry - Advisor: Daniel Slade)

Preliminary exam Chair

2024 Christen Hughes (PhD student – Biochemistry – Advisor: Jake Tu)
2024 Ashley Goodberlet (PhD student – Biochemistry – Advisor: Justin Lemkul)
2023 Laura Gil Pineda (PhD student – Biochemistry – Advisor: Justin Lemkul)
2022 Brittany Hart (PhD student – Biochemistry – Advisor: Brandon Jutras)
2019 Caitlin Cridland (PhD student – Biochemistry – Advisor: Glenda gillaspy)

Thesis examination (as external reviewer)

2024 Simplice Kambou (PhD student, IRD France – Advisors: David Carrasco and Anna Cohuet (IRD)) Role: *"Rapporteure de thèse"*.
2024 Martin Dessart (PhD student – IRBI CNRS France, Advisors: Claudio Lazzari and Fernando Guerrieri) – Role: *"Membre Invité"*.
2020 Amadou Sékou Traoré (PhD student – AgroParisTech, Advisor: Frédéric Simard) – Role: *"Rapporteure de thèse".*

TEACHING EXPERIENCE

Virginia Tech

2022 ENT 6354 Insect Behavior and Ecology (guest lecture)
2021-present BCHM 2364 (lab course designer, Instructor of record)
2019-2020 BCHM 2024 (guest lecture)
2019 Biochemical Communication (guest lecture)
2018 Disease Ecology & Ecosystem Management, FiW 3414 (guest lecture)

University of Washington

2016 Chemical Communication (Instructor of record)

University of Tours (France)

2022 Medical Entomology - France (guest lecture)
2020 Medical Entomology - France (guest lecture)
2012 Ecology (4h) *B.Sc. level: Licence 1st year*
2012 Ecology-Ethology (62h) *B.Sc. level: Licence 1st year*
2011 Insects mounting (4h) *M.Sc. level: Master 2nd year*
2011 Behavioral Ecology (14h) *Master 1st year*
2011 Ecology-Ethology (25h) *B.Sc. level: Licence 2nd year*
2010 Neuroethology (4h) *Master 1st year*
2010 Animal Biology (12h) *B.Sc. level: Licence 3rd year*

Other

2019 Medical Parasitology - University of Cincinnati (guest lecture)

OUTREACH (selected)

2021 Master Naturalists of Virginia invited speaker
2020 Kids' Tech guest invited speaker
2019 MLBS open house organizer
2019-present Hokie Bug Fest, Blacksburg, VA participant
2019-present Virginia Tech Science Festival participant
2018-present "Skype a Scientist" participant

MEDIA COVERAGE (selected)

- ScienceNews 11/27/2017
- CNRS 11/24/17
- In Defense of Plants 08/14/2017
- The Stranger 05/11/2016
- Science Daily 01/04/2016
- Le Point 01/17/2012
- Pour la Science 01/12/2012
- Science et Avenir 01/12/2012
- F1000 01/10/2012
- CNRS 01/10/2012
- New York Times 12/19/2011
- Scientific American 12/15/2011
- Science Daily 12/15/2011

PROFESSIONAL ACTIVITIES & SERVICE

Departmental Committees and University Service

2024-2025 Search Committee for Collegiate Faculty position (Chair) – Dept of Biochemistry (Virginia Tech)
2024-present Undergraduate Scholarship and Award Committee (member) – Dept of Biochemistry (Virginia Tech)
2021-2023 Advisory committee – Global Change Center (Virginia Tech)
2018-present Graduate committee (member) – Dept of Biochemistry (Virginia Tech)
2018-present Diversity and Inclusion Committee (Founder and Chair) – Dept of Biochemistry (Virginia Tech)
2016-2017 Graduate Program Committee Post-doctoral representative (UW)
2012 Member of the administrative committee at the IRBI (University of Tours)

Conference / symposium organization

2024-present EEID meeting co-organizer – Planned for June 2026 – Blacksburg VA, USA
2019 Symposium co-organizer for the ESA Eastern Branch Meeting – March 2019 – Blacksburg VA, USA

Editorial work

2020-present Member of the Review Editorial Board – *Frontier in Insect Science*
2020-present Member of the Review Editorial Board – MDPI *Insects*
2019-2020 Co-guest editor of a *COIS* section on Vector and medical and veterinary entomology
2018 Co-guest editor of a special issue on mosquito biology and ecology for the journal *Insects*
2014-present *Frontiers in Ecology and Evolution* / Chemical Ecology Editorial board member

Manuscript reviews

2010-present Bulletin of Entomological Research, Current Biology, Frontiers in Microbiology, African Journal of Biotechnology, Frontiers in Public Health, PloS One, Journal of Insect Physiology, Insect Science, Biology Letters, Insects, Parasites and Vectors, Biologia, Plos NTDs, Medical and Veterinary Entomology, Royal Society Open Science, IJERPH, Chemoecology, Journal of Insect Science, eLife, Journal of Thermal Biology, Journal of

Medical Entomology, Scientific Reports, Nature Ecology and Evolution, Parasites and Vectors, Ecological and Evolutionary Physiology, Journal of Chemical Ecology.

Proposal reviews

2014-present Graduate Student Awards (UW), Graduate Student Awards (VT), NSF CAREER award, USDA NIFA HATCH, NIH R13

Professional memberships

2021-present American Mosquito Control Association
2019-present AAAS
2019-present Sigma Xi
2018-present Virginia Mosquito Control Association
2014-present Entomological Society of America
2014-present Society of Integrative and Comparative Biology

DIVERSITY AND INCLUSION

As a 1st generation student, immigrant and woman in science, I am dedicated to promoting DEI and to support under-served and minoritized students, colleagues and friends. I listed below some of my efforts and actions to contribute to improve DEI in my lab, my department and beyond.

Service

2020-2022 Member of the Diversity and Inclusion Committee of ESA
2018-present Diversity and Inclusion Committee (Founder and Chair) – Dept of Biochemistry

Event participation / coordination (selected)

2020 Theater Delta Workshop
2018-present Black College Institute (lab host)

Trainings and workshops

2021 Creating an Inclusive Climate
2021 Cultural Competency Development
2021 Inclusive Pedagogy pathway
2021 Anti-racist Teaching
2021 What is Privilege and Why Does it Matter?
2020 Reducing Implicit Bias in the Classroom
2020 Inclusive pedagogy: How student Identities matter
2019-present Summer Diversity Summit (yearly)
2019-present Advancing diversity (yearly)

Publications

2021 Gillaspy, G., Thorpe, C., **Lahondère, C.**, Meenan, A., & Ahmed, T. Increasing the Sense of Belonging by Students in a Department of Biochemistry. *The FASEB Journal*, 35. (published abstract, ASBMB meeting).