Jeremy Van Cleve

vancleve.theoretical.bio [web]
jvancleve@uky.edu [email]

Department of Biology
University of Kentucky
Lexington, KY 40506

(859) 218-3020 [phone]
(859) 257-1717 [fax]

Education

Ph.D.	**Stanford University** Stanford, CA	Department of Biological Sciences Advisor: Professor Marcus W. Feldman	2009
B.A.	**Oberlin College** Oberlin, OH	Majors in Mathematics and Biology	2003

Professional Experience

University of Kentucky Lexington, KY	**Assistant Professor of Biology**	2015 –
National Evolutionary Synthesis Center **Duke University | UNC | NC State** Durham, NC	**NESCent Postdoctoral Fellow**	2013–2014
Santa Fe Institute Santa Fe, NM	**SFI Omidyar Fellow**	2009–2012
University of Colorado at Boulder Boulder, CO	**Professional Research Assistant**	2003–2004

Publications (*=co-first/corresponding author)

Akçay, E. & **Van Cleve, J.*** (2016) There is no fitness but fitness, and the lineage is its bearer. *Philosophical Transactions of the Royal Society B*, **371**, 20150 085. (doi:10.1098/rstb.2015.0085)

Akçay, E., Linksvayer, T. A. & **Van Cleve, J.** (2015) Bridging social evolution theory and emerging empirical approaches to social behavior. *Current Opinion in Behavioral Sciences*, **6**, 59–64. (doi:10.1016/j.cobeha.2015.09.002)

Van Cleve, J. & Weissman, D. B. (2015) Measuring ruggedness in fitness landscapes. *Proceedings of the National Academy of Sciences of the United States of America*, **112**, 7345–7346. (doi:10.1073/pnas.1507916112)

Van Cleve, J. (2015) Social evolution and genetic interactions in the short and long term. *Theoretical Population Biology*, **103**, 2–26. (doi:10.1016/j.tpb.2015.05.002)

Servedio, M. R., Brandvain, Y., Dhole, S., Fitzpatrick, C. L., Goldberg, E. E., Stern, C. A., **Van Cleve, J.** & Yeh, D. J. (2014) Not just a theory—the utility of mathematical models in evolutionary biology. *PLoS Biology*, **12**, e1002 017. (doi:10.1371/journal.pbio.1002017)

Van Cleve, J. & Akçay, E. (2014) Pathways to social evolution: Reciprocity, relatedness, and synergy. *Evolution*,

68, 2245–2258. (doi:10.1111/evo.12438)

Van Cleve, J. & Lehmann, L. (2013) Stochastic stability and the evolution of coordination in spatially structured populations. *Theoretical Population Biology*, **89**, 75–87. (doi:10.1016/j.tpb.2013.08.006)

Akçay, E. & **Van Cleve, J.*** (2012) Behavioral responses in structured populations pave the way to group optimality. *American Naturalist*, **179**, 257–269. (doi:10.1086/663691)

Brandvain, Y., **Van Cleve, J.***, Úbeda, F. & Wilkins, J. F. (2011) Demography, kinship, and the evolving theory of genomic imprinting. *Trends in Genetics*, **27**, 251–257. (doi:10.1016/j.tig.2011.04.005)

Liberman, U., **Van Cleve, J.** & Feldman, M. W. (2011) On the evolution of mutation in changing environments: recombination and phenotypic switching. *Genetics*, **187**, 837–851. (doi:10.1534/genetics.110.123620)

Van Cleve, J., Feldman, M. W. & Lehmann, L. (2010) How demography, life history, and kinship shape the evolution of genomic imprinting. *American Naturalist*, **176**, 440–55. (doi:10.1086/656277)

Akçay, E., **Van Cleve, J.***, Feldman, M. W. & Roughgarden, J. (2009) A theory for the evolution of other-regard integrating proximate and ultimate perspectives. *Proceedings of the National Academy of Sciences of the United States of America*, **106**, 19 061–19 066. (doi:10.1073/pnas.0904357106)

Salathé, M., **Van Cleve, J.** & Feldman, M. W. (2009) Evolution of stochastic switching rates in asymmetric fitness landscapes. *Genetics*, **182**, 1159–64. (doi:10.1534/genetics.109.103333)

Van Cleve, J. & Feldman, M. W. (2008) Stable long-period cycling and complex dynamics in a single-locus fertility model with genomic imprinting. *Journal of Mathematical Biology*, **57**, 243–264. (doi:10.1007/s00285-008-0156-4)

Van Cleve, J. & Feldman, M. W. (2007) Sex-specific viability, sex linkage and dominance in genomic imprinting. *Genetics*, **176**, 1101–1118. (doi:10.1534/genetics.107.071555)

Guralnick, R. & **Van Cleve, J.** (2005) Strengths and weaknesses of museum and national survey data sets for predicting regional species richness: comparative and combined approaches. *Diversity and Distributions*, **11**, 349–359. (doi:10.1111/j.1366-9516.2005.00164.x)

Preprints

Van Cleve, J. Cooperation, conformity, and the coevolutionary problem of trait associations. *In revision at Journal of Theoretical Biology*

Wilkins, J. F., Úbeda, F. & **Van Cleve, J.*** The landscape of imprinted genes in humans and mice: Conflict among alleles, genes, tissues, and kin. *In reivew at Bioessays*

Hoke, K. L., Barron, A. B., Hauber, M. E., Kopp, M. & **Van Cleve, J.*** Sensitive periods and the ontogenetic shape of behavioral plasticity. *Submitted to The American Naturalist*

Lehmann, L., Mullon, C., Akçay, E. & **Van Cleve, J.** Invasion fitness, inclusive fitness, and reproductive numbers in heterogeneous populations. *Submitted to Evolution*

Andris, C., Adler, L., Atwater, C., **Van Cleve, J.** & O'Dwyer, J. Measuring mentorships as bridging social capital. *Preprint*

Grants

2015 PI. National Academy of Sciences and Keck Foundation – Futures Initiative. $50,000
"Social evolutionary systems biology: Studying collective behavior by integrating social evolution theory with sociogenomics"

2015 Co-PI. National Academy of Sciences and Keck Foundation – Futures Initiative. $25,000
"Origin of multicellular development via the capture of a stochastic process"

2013 Co-PI. Frost Foundation. $20,000
"Quantifying the Impact of Mentorships on Human and Social Capital in Santa Fe New Mexico"

Awards and Honors

2014 Institute for Genomic Biology (UIUC), Carl Woese Fellowship (declined)

2010 Samuel Karlin Prize in Mathematical Biology (Stanford University)

2009 National Institutes of Health Postdoctoral Fellowship (declined)

2008 National Institutes of Health NLM Training Grant Appointment

2007 Stanford University Centennial Teaching Award

2006 Stanford University Department of Biological Sciences Excellence in Teaching Award

2004 Anne T. and Robert M. Bass Stanford University Graduate Fellowship

2002 Elected Phi Beta Kappa

2001 Barry M. Goldwater Scholarship

Invited Talks

University of Kentucky, Center for Ecology, Evolution and Behavior Annual Symposium (Keynote). May 2015.

University of Pennsylvania, Department of Biology, April 2014.

North Carolina State University, Biomathematics Graduate Program, April 2014

Florida State University, Department of Biology. January 2014.

University of California, San Diego, Section of Ecology, Behavior and Evolution. January 2014.

University of Kentucky, Department of Biology. December 2013.

Harvey Mudd College, Department of Biology. December 2012.

University of Lausanne, Switzerland, Department of Ecology and Evolution. May 2012.

Center for Nonlinear Studies, Los Alamos National Laboratory. April 2012.

University of Colorado, Boulder, Department of Ecology and Evolutionary Biology. January 2012.

University of New Mexico, Computer Science Department. November 2010.

National Institute for Mathematical Biology and Synthesis, Knoxville, TN. March 2010.

Conferences

National Academies Keck Futures Initiative, "Collective Behavior", Irvine, CA. November 2014.

Evolution Conference, Raleigh, North Carolina. Concurrent session talk. June 2014.

Toulouse Economics & Biology Workshop, Institute for Advanced Study in Toulouse, France. Poster. May 2014.

American Society of Naturalists, Asilomar, CA. Concurrent session talk. January 2014.

Evolution Conference, Snowbird, Utah. Concurrent session talk. June 2013.

Evolution Conference, Ottawa, Canada. Concurrent session talk. July 2012.

Animal Behavior Society and Human Behavioral and Evolution Society Meetings, Albuquerque, NM. Concurrent session talk. June 2012.

Ecological Society of America Meeting, Austin, TX. Concurrent session talk. August 2011.

Evolution Conference, Portland, OR. Concurrent session talk. June 2010

Evolution Conference, Minneapolis, MN. Concurrent session talk, June 2008.
EVO-WIBO Conference, Port Townsend, WA. Session talk. April 2008.

Evolution Conference, Christchurch, New Zealand. Concurrent session talk. June 2007.

Teaching Experience

University of Kentucky

- Fall 2015. BIO 770 Graudate Seminar: "Dr. Pangloss reborn? Natural selection in evolution"
- Spring 2016. BIO 325 Ecology
- Mentor: Hugh Ronald, Paul Laurence Dunbar High School, Lexington, KY (2015–2016)

NESCent

- Lecturer: Santa Fe Institute Summer Complexity and Modeling Program, Groton School, MA (Summer 2013)
- Mentor: Chloe Atwater, Research Assistant, Santa Fe Institute (Summer–Fall 2013).

Santa Fe Institute

- Lecturer: Santa Fe Institute Complex Systems Summer School (2011–2012)
- Mentor: Austen Mack-Crane, Brown University, REU student (Summer 2012)
- Mentor: Brecia Young, Harvard University, REU student (Summer 2011)
- Mentor: Amalie McKee, Case Western Reserve University, REU student (Summer 2010)
- Mentor: The Masters Program (charter high school), Santa Fe, NM (2010–2012)

Academic Service

Associate Editor (2016–2019), Theoretical Population Biology.

Reviewer: *Nature Communications*, *Proceedings of the National Academy of Sciences*, *Genetics*, *Theoretical Population Biology*, *Proceedings of the Royal Society B*, *Philosophical Transactions of the Royal Society B*, *The American Naturalist*, *Evolution*, *Evolutionary Ecology*, *Evolutionary Biology*, *Biological Reviews*, *Behavioral Ecology*, *Heredity*,

PLoS Computational Biology, *PLoS ONE*, *Journal of Theoretical Biology*, *Bulletin of Mathematical Biology*, *Journal of the Royal Society Interface*.

Member of the American Society of Naturalists and the Society for the Study of Evolution.

Media Coverage

Albuquerque Journal Health section article, June 13, 2011.