

Title: Unteaching Racism: Understanding and handling misuse of racial categories

Description: Science has been repeatedly deployed to bolster false ideas of human difference and racist ideologies which in turn inform legislation and policies that shape systemic racism. Modern genetics has verified that notions of biological difference between groups of people are false. Nevertheless, mythologies of inherent difference based on presumptions of racial distinction persist within both the life sciences and society at large. Faculty teaching at AALAC institutions are interested in curricular and pedagogical materials that address the realities and legacy of racism. Most of us were not trained in understanding the history, deployment and utilization of racial categories. The history of racial taxonomy and its impact in both the life sciences and society at large is a pedagogical omission that reinforces racism. Therefore, the targeted audience for this workshop is faculty teaching in the life sciences and faculty teaching in other areas using materials that include race categories. This workshop will provide participants clarity of understanding regarding the creation and deployment of race categories that they can practically apply to generate or enhance their teaching and scholarship related to racism.

By educating faculty, with anticipation of their impact on students, we will encourage attention to, and correction of, examples used in syllabi, classroom and research projects reflecting racist ideologies in the life sciences or their applications. The workshop will take place over three days, tentatively in June, 2024. The format will be a mix of presentation of some materials by leadership, large and small group discussion, and activities that will build comprehension and development of materials that participants can incorporate into their own teaching or scholarship.

This project will help uproot a legacy of racist thinking that still informs ideas equating race as an inherent immutable characteristic of difference. Faculty adapting the gains from the workshop will be able to revise their classroom practices to teach about racism and interfere with perpetuation of implicit and explicit remnants of scientific racism. The workshop will help participants enhance their home learning environments. Therefore work stemming from this interdisciplinary workshop will provide good models on AALAC campuses for interdisciplinary teaching and learning. Each participant will create a plan, including resources and next steps, for how they will incorporate what they have learned in the workshop into their teaching or scholarship. Other outcomes from the workshop might include shared teaching materials, formation of small working groups to facilitate future collaboration and support for people implementing these ideas and an interdisciplinary approach into their teaching or scholarship, and a follow-up workshop or presentation at a conference, such as the AAC&U Transforming STEM conference.

Workshop organizers and facilitators:

- Leslie Gregg-Jolly, Biology, Grinnell College
- Katya Gibel Mevorach, Anthropology and American Studies, Grinnell College
- Phoebe Lostroh, Molecular Biology, Colorado College

Designated Liaison:

Leslie Gregg-Jolly, Douglas Johnson '77 Professor of Biology, greggiol@grinnell.edu, Grinnell College

Abbreviated CV – Professor Katya Gibel Mevorach

Katya Gibel Mevorach [n.b. formerly Azoulay]:
Professor (Department of Anthropology & American Studies), Grinnell College, Grinnell IA gibel@grinnell.edu - +1 (641) 481-1166

Education

1995 Ph.D. Cultural Anthropology, Duke University 1992 Certificate,
Women's Studies, Duke University
1988 M.A. (cum laude) African Studies, Hebrew University of Jerusalem, Israel
1982 B.A. African Studies/English [double major], Hebrew University of Jerusalem, Israel 1970 Academic Diploma, The Brearley School, New York, N.Y.

Teaching Positions, Grinnell College:

Professor 2010 to present
- Chair, Africana Studies Concentration 1996 - 2000;
- Chair, American Studies Concentration 2004 - 2005; 2015- 2019

Relevant publications

Book: *Black, Jewish and Interracial: Its Not the Color of Your Skin but the Race of Your Kin and Other Myths of Identity*. Durham and London: Duke University Press, 1997. (2nd printing 2003) [Honorable Mention for Outstanding Book Awards for books published in 1997 by The Gustavus Meyers Center for the Study of Bigotry and Human Rights in North America, Boston University School of Social Work]

Chapters:

“Racism, Pedagogy and Willful Ignorance.” IN Carlo Raymondo Botrugno, Marcia Mocellin and Lucia Re. *Bioethics and Racism: Practices, Conflicts, Negotiations and Struggles*. De Gruyter, 2023.
<https://www.degruyter.com/document/isbn/9783110765120/html#Chicago>

"When Words Have Failed and Political Rhetoric Turns Stale: Race, Racism and Caste" In *Against Stigma: Studies in Caste, Race and Justice Since Durban* eds. Balmurli Natrajan and Paul Greenough, Delhi: Orient Longman Press (2008).

“Reflections on ‘Race’ and the Biologization of Difference.” In *Race and Contemporary Medicine*. Ed. Sander Gilman, London: Routledge, December 2007.

“Les identités juives au miroir de l’héritage du racisme aux Etats Unis.” In ed. Shmuel Trigano, *Juifs & Noirs du mythe a la réalité*. Pardes 44 (2008), 119-132.

“The Illusion and Elusiveness of Whiteness: Between Politics and Polemics.” *ISGAP Flashpoint* [online], 4 December 2018. <https://isgap.org/flashpoint/the-illusion-and-elusiveness-ofwhiteness-between-politics-and-polemics/>

“Race, racism, and academic complicity.” *American Ethnologist* Volume 34, Number 2 (May 2007).

Entry on “Iowa.” In *Civil Rights in the United States* edited by Waldo E. Martin and Patricia Sullivan (New York: Macmillian Reference, USA, 2000)

Invited Presentations, Lectures, Panels

“Antisemitism and Curriculum: Decentering Identities/Curating Syllabi,” 2022 *ISGAP-Oxford Summer Institute for Curriculum Development in Critical Antisemitism Studies*. Pembroke College, Oxford UK (9 Aug 2022).

Scholars Convening, *The Naomi Foundation special convening to consider how to recognize, teach, and study antisemitism and Jewish inclusion alongside Diversity, Equity, and Inclusion initiatives within schools/colleges/departments of education and other educational settings*. Georgetown University, Washington D.C. (1-2 June 2022).

(Keynote Address). "Intersectionality: The Both... And... Paradigms of Jewish Identities" *NJHSA & NAJC Joint Annual Conference 2022*. Minneapolis, MN (16 May 2022).

"Jews, Jewish Identities and Racecraft," Faculty Seminar in the Jewish Studies program, Dartmouth College (online Zoom, 1 June 2021).

Panelist *Women in Academia: Learning from the Past, Building toward the Future. Moderated by* Dr. Valerie Johnson, Dean School of Arts, Sciences, and Humanities and Co-director, Center for Racial and Social Justice joined by Dr. Tamara Holmes Brothers, and Dr. Annette M. Rodriguez. Shaw University, North Carolina (online Zoom 29 March 2021)

"Strategic Interventions: uprooting racial taxonomy and challenging racism in science courses." *Bioethics in Action II – Seminar Series by the RUEBES* Research Unit on Everyday Bioethics and Ethics of Science, L'Altro Diritto Inter-university Research Centre Department of Legal Sciences, University of Florence. (online Webex 23 March 2021).

"Pedagogy, Politics and 21st century Challenges: Teaching about the intersecting phenomenon of 'Antisemitism and Racism'" *United Against Racism Conference, World Jewish Congress Jewish Diplomatic Corps Program*, (online Zoom, 13 Nov 2020).

"Challenges Teaching about the Intersecting Phenomenon of 'Racism and Antisemitism'" *Race And Antisemitism: Contemporary Global Perspectives* Ackerman Center for Holocaust Studies, School of Arts & Humanities The University of Texas at Dallas (online Zoom 24 Sept 2020)

Workshop Leader with Leslie Gregg-Jolly, Dr. Rachel Bergstrom, Dr. Diane Angell "Integrating social issues related to demographic categories into science." *Pre-Conference Workshop AAC&U's Transforming STEM Higher Education conference*. Chicago, Ill 8 Nov 2019.

"Racecraft and an Expulsion from Diaspora." *Racialisation and Publicness in Africa and the African Diaspora Conference* African Studies Centre, University of Oxford, UK 28 June 2019.

- **Scholar-in-Residence** ISGAP Oxford Summer Institute, *Institute for the Global Study of Antisemitism and Policy at Oxford* (UK) 31 July -1 Aug 2016.

"Community Participation." Genetic Technologies and Racial Justice" Track. *Center for Genetics & Society Tarrytown Meetings*. Tarrytown NY, July 2012

"Filling the Gaps." Education Track, *Center for Genetics & Society Tarrytown Meetings*. Tarrytown NY, July 2011.

Faculty Funding

- Grinnell College Support for Faculty Development, (6 week intensive French language course at *Accord: L'école des langues*, Paris, Fr); Summer 2006
- Grinnell College Travel Stipend (research in Israel, December '00 - 1 January '01)
- NEH Summer Stipend FT-45693-01 (research in Israel, summer 2001); Grinnell College Committee for Support of Faculty Scholarship (Summer 2001 research support).

Professional Activities & Service

- Chair, American Studies Concentration, Grinnell College, 2015 - 2019.
- Reviewer, *Social Science and Humanities Research Council of Canada* (SSHRC, International), 2012-2013.
- Evaluator for The Humanities Iowa (HI)- evaluation of *Exhibit Race: Are We So Different* at University of Northern Iowa (invited – Spring 2012)
- Interdisciplinary Studies Advisory Board, Grinnell College (2010-2011)
- *Presidential Diversity Committee Task Force*, Grinnell College (Fall 2004)
- *Grinnell College Diversity Steering Committee* (2002-2005).
- Guest Editor and contributor, *Bridges: A Journal for Jewish Feminists*. Special Issue, "Writing and Art by Jewish Women of Color." Volume 9, 1 (2001).
- *Presidential Diversity Committee Task Force*, Grinnell College: summer effort to craft specific action-oriented proposals to address issues of diversity in faculty hiring procedures. (Summer 2000)
- *Screener*, 2000 SSRC-ACLS International Dissertation Field Research Fellowship (IDRF program)

Leslie A. Gregg-Jolly

Douglas D. Johnson '77 Professor of Biology, Grinnell College, Grinnell, Iowa 50112
Curriculum Vitae (abbreviated)

EDUCATION

Vassar College; Major: Biochemistry, B.A., 1984

Yale University; Biology, M.S. and M. Ph., 1986; Ph.D., 1991

University of Arizona, Department of Molecular and Cellular Biology Research Associate, 1990-1993

TEACHING AND RESEARCH EXPERIENCE

Grinnell College; Professor of Biology, Assistant 1993-1999, Associate 1999-2008, Full 2008-

Faculty Director for ACM Botswana, 2018

AWARDS, FELLOWSHIPS, AND GRANTS

Distinguished Faculty Member Award, Iowa Chapter of the AAUW 2019

Grinnell College Innovation Fund Grant, "Off-Campus Faculty and Staff Mentoring Program", 2018-2019

HHMI (PI) Undergraduate science education grant awarded to Grinnell College, award focused on competency-based curriculum of intermediate level sciences, 2012-2017

2009 NSF-Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM) to the Grinnell Science Project (I was the primary author of the nomination and Jim Swartz was the PI). Awarded 2011

NSF-MRI (co-PI) "Acquisition of a Quantitative Real-Time PCR System for Biological Science Research", 2008-2009

NSF-RUI (co-PI) "Acquisition of a Capillary Electrophoresis System for DNA Analysis in Investigations of Adaptation, Speciation, Species Interactions and DNA Repair", 2000-2001.

NSF-DUE-CCLI-A&I (co-PI), "Reform of Undergraduate Biology Education: Biological Inquiry and Integrative Biology", 1999-2001

American Society for Microbiology Undergraduate Research Fellowships (4 students), 1998-2000.

National Cancer Institute Postdoctoral Fellow, University of Arizona, 1991-1993

SERVICE

Faculty Liaison, Student Life and Enrollment Committee Grinnell College Board of Trustees (3 3-year terms) 2014-

Grinnell Innovation Fund Committee (Chair 2019), 2012-

Editorial board member for *Applied and Environmental Microbiology* 2009-2018, ad-hoc reviewer 2019-

Ladies Education Society 2008-

Committee for Biological Chemistry 1999-

Chair, Biological Chemistry 2022-2023

NSF Panelist: C-RUI 1999, CCLI 2000, HBCU-EiR 2021

Interim Chief Diversity Officer, Assistant Vice President 2018- 2019

Co-Chair Committee for Diversity and Inclusion 2018-2019

Associate Dean of the College 2008-2011, 2018-2019

Second Year Science Student Retreat Planning Committee (Chair 2013-2017) 2013-2019

Contributor to the Grinnell Science Project: co-director for pre-orientation (1999, 2001), supervised early research experience short projects (1994, 1995), new pre-orientation module "Exploring Identity" (2019), annual contributor to pre-orientation (when teaching on campus full time) 2000-

Task force On Teaching and Learning Across Disciplines 2015 -2017

Health Professions Advisory Committee 1995-1998, 2005-2006, 2013-2017

Chair, Department of Biology 2011-2013

Co-founder and co-director of Scholarly Women's Achievement Groups 2004-2008

Planning Committee for ACM Women in Science Networking Seminar 2005-2006

Ad Hoc Reviewer for the inaugural issue of the ASM journal *Microbiology Education* 2000

CONSULTANT AND EXTERNAL REVIEWER

Specializing in Diversity and Inclusion, Integration of Teaching and Research, and Biology and Biochemistry: Allegheny College, Centre College, Hamilton College, Kenyon College, Knox College (NSF-S STEM), Lake Forest College, Lewis & Clark College, Morningside College, Punahou School, St. Thomas College, Nebraska Wesleyan University, Willamette University

PUBLICATIONS

Selected Manuscripts (Undergraduate research students are underlined.)

- Gregg-Jolly, L.A. (2022) Locking Down SOS Mutagenesis Repression in a Dynamic Pathogen. *J. Bacteriol.* 204 (11). doi: 10.1128/jb.00220-22
- Swartz, J., & Gregg-Jolly, L. A. (2018). Comprehensive model for undergraduate science education reform to better serve the underserved. In T. Kishbaugh, T., & Cessan S. (Eds.), *Increasing retention of under-represented students in STEM through affective and cognitive interventions*. American Chemical Society.
- Dibartolo, P. M., Gregg-Jolly, L. A., Gross, D., Manduca, C. A., Iverson, E., Cooke D. B., Davis, G. K., Davidson, C., Hertz, P. E., Hibbard, L., Ireland, S. K., Mader, C., Pai, A., Raps, S., Siwicki, K., & Swartz, J. E. (2016). Principles and practices fostering inclusive excellence: Lessons from the Howard Hughes Medical Institute's Capstone Institutions. *CBE-Life Sciences Education*, 15(3), ar44-. <https://doi.org/10.1187/cbe.16-01-0028>
- Gregg-Jolly, L. A., Swartz, J. E., Iverson, E., Stern, J., Brown, N., & D. Lopatto. (2016). Situating second-year success: Understanding second-year STEM experiences at a liberal arts college. *CBE-Life Sciences Education*, 15(3), ar43. <https://doi.org/10.1187/cbe.16-01-0044>
- Gregg-Jolly, L. A., Kington, R., Lopatto, D., & Swartz, J. E. (2011). Benefits of intertwining teaching and research. *Science*, 331(6017), 532. <https://doi.org/10.1126/science.331.6017.532-a>
- Chakravorty, A., Klovstad, M., Peterson, G., Lindeman, R. E., & Gregg-Jolly, L. A. (2008). Sensitivity of an *Acinetobacter baylyi* *mpl* mutant to DNA damage. *Applied and Environmental Microbiology*, 74(4), 1273–1275. <https://doi.org/10.1128/AEM.02347-07>
- Hare, J. M., Perkins, S. N. & Gregg-Jolly, L. A. (2006). A constitutively expressed *umuDC* operon regulates the *recA*-dependent DNA damage Induction of a Gene in *Acinetobacter baylyi* strain ADP1. *Applied and Environmental Microbiology*, 72(6), 4036–4043. <https://doi.org/10.1128/AEM.02774-05>
- Rauch, P. J. G., Palmén, R., Burds, A.A., Gregg-Jolly, L.A., van der Zee, J. R., & Hellingwerf, K.J. (1996). The expression of the *A. calcoaceticus recA* gene increases in response to DNA damage independently of RecA and of development of competence for natural transformation. *Microbiology (Society for General Microbiology)*, 142(4), 1025–1032. <https://doi.org/10.1099/00221287-142-4-1025>

Website

Co-creator, coordinator “Supporting STEM Success in a Liberal Arts Context” <http://serc.carleton.edu/liberalarts/index.html>

Selected Abstracts and Presentations (in addition to over 12 other presentations with 14 students)

- Gregg-Jolly, L.A., Micki Meyer, Emily Miller, Sean Tvelia (Invited Panelists). *Making Change Happen: Examples to Inspire*. AAAS Seminar “Imagining the Future of Undergraduate STEM Education”. May 4, 2022.
- Gregg-Jolly, L.A. (Panelist and Co-Organizer). (2020, June). *Beyond empathy: Sharing anti-racist resources*. Grinnell College, Grinnell, IA.
- Gregg-Jolly, L.A., Bergstrom, R., Mevorach, K., & Angell, D. (2019, November). *What makes difference and what difference does difference make: Integrating social issues related to demographic categories into science*. AAC&U Transforming Undergraduate STEM Education: Implications for 21st Century Society, Chicago.
- Swartz, J., Gregg-Jolly, L.A., Manduca, C., & DiBartolo, P. (2016, November). *Principles and practices fostering inclusive excellence: Lessons from the HHMI Capstone Institutions*. AAC&U Transforming Undergraduate STEM Education: Implications for 21st Century Society, Boston.
- Gregg-Jolly, L.A., Iverson, E., Stern, J. M., & Swartz, J. E. (2015, January). *Promoting equity and success in STEM: Addressing the second year*. AAC&U conference, Washington, DC.
- Gregg-Jolly, L. A. & Sandquist, J. C. (2014, May). *Comparable benefits of an inquiry-driven introductory biology course and a summer research experience*. 21st Annual ASM Conference for Undergraduate Educators (ASMCUE), Danvers, MA. <https://dx-doi-org.grinnell.idm.oclc.org/10.1128%2Fjmbe.v15i1.728>
- Gregg-Jolly, L.A., Schneider, M., & Swartz, J. E. (2011, March). *Comprehensive changes to STEM education: Reform to better serve the underserved*. The Grinnell Science Project. AAC&U pKAL conference, Miami.
- Gregg-Jolly, L.A. (2008, December). *The Grinnell Science Project and the evolution of an introductory biology course*. Conference on Engaging Pedagogies held by Project Kaleidoscope and American Colleges of the Midwest, Grinnell, IA.
- Gregg-Jolly, L.A. (2009, May). *The Grinnell Science Project and the evolution of an introductory biology course*. Conference on Improving Student Outcomes in Gateway Introductory Courses, The Consortium on High Achievement and Success (CHAS), Union College, Schenectady, NY.
- Gregg-Jolly, L.A. (2007, November). *Scholarly Women's Achievement Groups (SWAG): Using small support groups to enhance scholarly productivity at Grinnell College*. Invited speaker: pKAL F21 National Assembly, Chantilly, VA.
- Gregg-Jolly, L.A., Lindgren, C. & Kuiper, S. (2007, November). *A faculty development program for bridging the physical and life sciences in undergraduate education*. pKAL F21 National Assembly, Chantilly, VA.

C. PHOEBE LOSTROH

Department of Molecular Biology, The Colorado College, 14 E Cache la Poudre Street
Colorado Springs, CO 80903; (719) 357-2073; E-mail: plostroh@gmail.com

EDUCATION

- 2001 Harvard University (Cambridge, MA). Ph.D., Microbiology and Molecular Genetics.
1994 Grinnell College (Grinnell, IA). B.A., Biology.
1990 United World College of the American West (Las Vegas, NM), International
Baccalaureate (HL in Biology, English and Spanish).

PROFESSIONAL APPOINTMENTS

- 2021 Program Director in Systems & Synthetic Biology, Division of Molecular and Cellular
Biosciences, Biology Directorate, National Science Foundation (Alexandria, VA; AD-
04)
2019-2021 Program Director in Genetic Mechanisms, Division of Molecular and Cellular
Biosciences, Biology Directorate, National Science Foundation (Alexandria, VA; AD-
04)
2014-present Associate Professor of Molecular Biology, Colorado College (Colorado Springs, CO)
2011 Director, Associated Colleges of the Midwest study abroad program in Botswana
(Gaborone, Botswana)
2011 Visiting Associate Professor, Faculty of Nursing, University of Botswana (Gaborone,
Botswana)
2009-2014 Associate Professor of Biology, Colorado College (Colorado Springs, CO)
2003-2009 Assistant Professor of Biology, Colorado College (Colorado Springs, CO)

SELECTED HONORS

- 2021 Incentive Award for leadership pertaining to diversity, equity and inclusion; National
Science Foundation
2020 Incentive Award for leadership during the Biology Directorate's response to COVID-
19; National Science Foundation
2019 Taylor & Francis 2019 Outstanding New Science and Medical Textbook author
2018 Finalist, Council on Undergraduate Research Fellows Award
2015 Girl Scouts of Colorado Woman of Distinction
2014 Midstates Consortium for Math and Sciences Janet Anderson Award for faculty "who
are exceptional mentors for undergraduate research students, who are engaged and
skilled teachers"
2012 Inaugural Theodore Roosevelt Collins Outstanding Faculty/Staff Award for service to
minority and international students
2009 Lloyd E. Worner Teacher of the Year Award
2009 Bob Pizzi Memorial Outstanding Advisor of the Year Award
2006-08 Macarthur Professorship for outstanding promise in teaching and scholarship
2004 Benezet Award for summer scholarly activities

SELECTED LEADERSHIP, SERVICE AND OUTREACH (DEIA-RELATED)

- 2020-2021 BIO Broadening Participation Working Group, National Science Foundation,
Alexandria, VA
2020 Chair, Molecular & Cellular Biosciences Diversity & Inclusion Working Group,
National Science Foundation, Alexandria, VA
2019-2020 Diversity, Equity and Inclusion Taskforce, The American Society for Microbiology,
Washington, DC
2014 Led development & founding of the Diversity and Equity Advisory Board in
collaboration with Disability Services and Title IX director.
2014 Selection Committee, Lead Staff Assistants Search
2014 Ad Hoc Committee on Gender- and Sexuality-related data collection from applicants
for employment at the college
2013-14 Strategic Planning Action Team on Diversity, Inclusion, and Equal Access

2012-14 Chair, Women's Concerns Committee
 2012 Chair, Women's Concerns Committee
 2012 Women's Concerns Representative, Search for Inorganic Chemist
 2012 Women's Concerns Representative, Search for Assistant Dean of Students
 2011-12 Chair, Women's Concerns Committee
 2006 Minority Concerns Representative on Environmental Science Search team
 2005-present Faculty advisor to MAPS (student organization for minoritized pre-health students)

LEADERSHIP, SERVICE AND OUTREACH: Other

2021 External tenure file reviewer for two colleges/universities
 2021 External biology honors thesis examiner, Swarthmore College, Swarthmore, PA
 2021 Volunteer instructor, Pillar Lifelong Learning, Colorado Springs, CO
 2020-2021 NEON Users Working Group, National Science Foundation, Alexandria, VA
 2020 BIO COVID-19 RAPID Working Group, National Science Foundation, Alexandria, VA
 2020 Consulting microbiologist, COVID-19 long-term planning committee, El Paso County Public Health, El Paso County, CO
 2018-19 Chair, Colorado College Assessment Committee
 2018 External tenure file reviewer
 2018 Volunteer instructor, Pillar Lifelong Learning, Colorado Springs, CO
 2018 Completed training to become Peer Reviewer for the Higher Learning Commission (an accrediting body)
 2017-present Volunteer comedienne, Science Riot! (public science education through stand-up)
 2017 An Introduction to Tenure for Microbiologists (a workshop), American Society for Microbiology Conference on Undergraduate Education

SELECTED EXTERNAL GRANTS AWARDED

2013 NSF MCB-1330511, RUI: Biology-Physics Collaboration to Investigate the Genetic and Structural Basis of Competence in Bacteria. Co-PI Kristine Lang
 2009 NSF IOS-0841479; co-PI with Michele Nishiguchi
 2009 NSF ROA 0946913; co-PI with Michele Nishiguchi

SELECTED PUBLICATIONS *denotes undergraduate collaborators

Fahnert, Beatrix and Lostroh, C. Phoebe. (2023). *Strelkauskas' Microbiology A Clinical Approach*, Third edition. CRC Press, Indianapolis, IN.
Lostroh, C. Phoebe. (2019) *The Molecular and Cellular Biology of Viruses*. CRC Press, Indianapolis, IN. Taylor & Francis 2019 Outstanding New Science and Medical Textbook.
 Contina, A., S. W. Yanco, A. K. Pierce, M. Deprenger-Levin, M.B. Wunder, A. M. Neophytou, **C. P. Lostroh**, R., Telford, B. M. Benito, J. Chipperfield, R. B. O'Hara, and C. J. Carlson. Comment on "A global-scale ecological niche model to predict SARS-CoV-2 coronavirus infection rate," author Coro. *Ecol Modell* 2020 463: 109288. doi: 10.1016/j.ecolmodel.2020.109288
Lostroh, C. Phoebe. (2019) *The Molecular and Cellular Biology of Viruses*. CRC Press, Indianapolis, IN. Taylor & Francis 2019 Outstanding New Science and Medical Textbook.
 Leong C. G.*, R. A. Bloomfield*, C. A. Boyd*, A.J. Dornbusch*, L. Lieber*, F. Liu*, A. Owen*, E. Slay*, K. M. Lang, and **C. P. Lostroh**. The role of core and accessory type IV pilus genes in natural transformation and twitching motility in the bacterium *Acinetobacter baylyi*. *PLoS One*. 2017 Aug 3;12(8):e0182139. doi: 10.1371/journal.pone.0182139. eCollection 2017.
 Leong, C.G.*, C. M. Boyd*, K. S. Roush*, R. Tenente*, Lang, K. M. and **C.P. Lostroh**. Succinate, iron chelation, and monovalent cations affect the transformation efficiency of *Acinetobacter baylyi* strain ATCC33305 during growth in complex media. *Can J Microbiol*. 2017 Aug 3. doi: 10.1139/cjm-2017-0393.