

Corrella Scott Detweiler, Ph.D.

Professor

Department of Molecular, Cellular & Developmental Biology

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EDUCATION AND RESEARCH

Research Interests Early stage antimicrobial discovery in the context of infection; bacterial exploitation of macrophages

Education

PhD 1998 (Biochemistry) University of California San Francisco, CA
Mentor: Dr. Joachim Li; Department of Microbiology & Immunology
The Role of CDC6 in Yeast DNA Replication

AB 1991 (Biochemistry) Bowdoin College, Brunswick, ME; *magna cum laude*

Post-Doctoral Research Experience

1998 – 03 Stanford University Medical School, Stanford, CA
Mentor: Dr. Stanley Falkow; Dept of Microbiology & Immunology
Host-Pathogen Interactions

Faculty Appointments

2020 – present Professor, University of Colorado at Boulder
Department of Molecular Cellular & Developmental Biology

2017 – 18 Visiting Scientist, Pasteur Institute, Paris, France

2010 – 20 Associate Professor with Tenure, University of Colorado at Boulder
Department of Molecular Cellular & Developmental Biology

2014 – 17 Faculty Director for the Office of the Vice Chancellor for Research

2003 – 10 Assistant Professor, University of Colorado at Boulder
Department of Molecular Cellular & Developmental Biology

Positions and Scientific Appointments

2023 NIH Peer Review Committee: Infectious Diseases and Immunology (F07A) fellowship panel

2022 NIH Peer Review Committees: HIBP; BACP

2021 NIH Peer Review Committees: HIBP (2x); IDIA (80)

2021 – present Co-founder and Scientific Advisory Board member of Bactria Pharmaceuticals, LLC

2020 – present Editor in Chief, Microbiology & Molecular Biology Reviews, American Society for Microbiology

2020 – present Scientific Advisory Board member of Cobio Diagnostic, Inc

2019 Co-chair, 1st Salmonella Biology and Pathogenesis Gordon Research Conference

2017 – 18 Visiting Scientist, Pasteur Institute, Paris, France with Dr. J. Enninga

2017 Spearheaded successful application for a Salmonella Gordon Research Conference

2016 – 07 American Kennel Club Canine Health Foundation Grant Reviewer

2013 – 21 Member, Wind River Conference on Prokaryotic Biology Executive Committee

2013 – 20 Associate Editor, Microbiology & Molecular Biology Reviews, American Society for Microbiology

2013 Organizer, 57th Wind River Conference on Prokaryotic Biology, Estes Park, CO

2011 – 20 NIH Peer Review Committees, 1-3x per year: IDM-A/B, BACP, BCMB, MBPP, ZRG1-IDM- Y, COBRE, RFA-GM-13-001

2010 NIH Peer Review Committee: Enterics Investigational Network Cooperative Research Center

2008 NIH Peer Review Committee: Bacterial Pathogens (BACP)

1991 – 92 Research Assistant, Max Planck Institute, Tübingen, Germany

Honors

2021 Colorado Office of Economic Development Advanced Industry Accelerator Award to fund the development of efflux pump inhibitors

2019 Dean's Award for Research Excellence, University of Colorado at Boulder to fund travel to chair 1st *Salmonella* Gordon Research Conference

2018 Colorado Office of Economic Development Advanced Industry Accelerator Award to fund early antibiotic research

2017 – 08 Burroughs Wellcome Fund Collaborative Research Travel Grant to fund sabbatical travel at the Pasteur in Paris, France

2017 Dean's Award for Research Excellence, University of Colorado at Boulder to fund sabbatical travel at the Pasteur in Paris, France

2017 College Scholar Award, University of Colorado at Boulder to fund sabbatical leave in Paris, France

2016 Leadership Education Individual Growth Grant, University of Colorado to fund pilot screen in the area of antimicrobial discovery

2015 Innovative Seed Grant Award, University of Colorado at Boulder to fund a new research direction, antimicrobial discovery

2014 Seed Grant Award, Butcher Foundation to fund *in vivo* imaging of macrophages

2010 Awarded Tenure at University of Colorado at Boulder

2006 – 09 Dean's Awards for Research Excellence, University of Colorado at Boulder to fund travel to international meetings

2006 – 07 National Academies Education Fellow in the Life Sciences

2006 Research & Creative Work Seed Grant Award, University of Colorado

2005 – 06 Butcher Foundation Genomics & Biotechnology Collaborative Award

2005 Junior Faculty Development Award, University of Colorado at Boulder

2004 Butcher Foundation Genomics & Biotechnology Collaborative Award

2001 Henzl-Gabor Travel Award, Stanford University

1999 – 02 Postdoctoral Fellowship, American Cancer Society

1992 – 05 Pre-doctoral Research Fellowship, National Science & Engineering, DOD

1991 Graduation with honors, *magna cum laude*, Bowdoin College

1989 Organic Chemistry Laboratory Award, Bowdoin College

Grant Support – Current

Title: A Small Molecule That Blocks Salmonella Replication in Macrophages

Agency: NIH (NIAID)

Type: R21 AI151979

Role: Principal Investigator

Costs: \$231,000 total

Dates: 12/20 - 12/23

Title: Combating Multi-Drug Resistant Gram-negative Healthcare-Associated Infections

Agency: State of Colorado
Type: OEDIT Advanced Industry Proof of Concept Award 21-08-0267
Role: Principal Investigator
Costs: \$150,000 total
Dates: 3/22 - 2/24

Title: Efflux Pump Inhibitors and *Mycobacterium tuberculosis*

Agency: University of Colorado
Type: AB Nexus Award
Role: Co-Principal Investigator
Costs: \$50,000 total; \$10,000 to Detweiler, \$40,000 to Voskuil
Dates: 12/22 – 11/23

Grant Support – Pending

Title: Using Salmonella Pathogenesis and Cell Biology as a Discovery Tool

Agency: NIH (NIAID)
Type: R21 AI171945-01A1
Role: Principal Investigator
Costs: \$430,375
Dates: TBD - Score of 20, NIAID interim payline is 26 (lower scores are better; should be funded).

Title: Infection-Dependent Vulnerabilities of Gram-negative Bacterial Pathogens

Agency: NIH (NIAID)
Type: R01 1 R01 AI168916-01A1
Role: Principal Investigator
Costs: TBD - Proposal scored in the 14th percentile and is being put forward for Multiyear (4) Select Pay Support by the Program Officer

Grant Support – Past

Title: New Drugs to Combat Antimicrobial Resistant Bacteria

Agency: State of Colorado
Type: Advanced Industry Accelerator Award
Role: Principal Investigator
Costs: \$130,000 direct total
Dates: 7/18 - 4/20

Title: A Novel Screen for Antibacterials that Are Non-Toxic to Mammals

Agency: NIH (NIAID)
Type: R33 AI121365A
Role: Principal Investigator, Co-PI X. Wang (Associate Professor in CHEM)
Costs: \$460,280 total per year; \$304,912 direct per year
Dates: 12/17 - 11/20

Title: Bacterial Efflux Pump Inhibitors (Support From NIH in Non-Grant Form)

Agency: National Institute for Allergy and Infectious Disease Pre-Clinical Services

Type: Pre-clinical testing of lead compounds
Role: Principal Investigator
Costs: Safety Profiling for 4 compounds total
Dates: 5/19 - 12/19

Title: Macrophages, Granulomas and Bacterial Persistence

Agency: NIH (NIAID)
Type: R21 AI121474
Role: Principal Investigator, Co-PI Toni Nagy (SRA in the Detweiler lab)
Costs: \$423,448 total; in no cost extension
Dates: 6/16 - 5/19

Title: Chemical Probes for Bacteria-Macrophage Interactions

Agency: NIH (NIAID)
Type: R21 AI126453
Role: Principal Investigator
Costs: \$423,448 total; in no cost extension
Dates: 7/16 - 6/19

Title: Using Functional Microscopy to Understand How New Antimicrobials Work

Agency: Burroughs Wellcome Fund
Type: Collaborative Research Travel Grant
Role: Principal Investigator
Costs: \$10,000 direct
Dates: 7/17 - 6/18

Title: A Novel Screen for Antibacterials that Are Non-Toxic to Mammals

Agency: NIH (NIAID)
Type: R21 AI121365A
Role: Principal Investigator, Co-PI X. Wang (Associate Professor in CHEM)
Costs: \$433,572 total
Dates: 12/15 - 11/17

Title: Hemophagocytic Macrophages And Systemic *Salmonella* Infection

Agency: NIH (NIAID)
Type: R01 AI095395
Role: Principal Investigator
Costs: \$1,660,958 total
Dates: 3/12 - 2/17

Title: Developing New Antibacterials

Agency: University of Colorado at Boulder
Type: Leadership Education Individual Growth Grant
Role: Principal Investigator
Costs: \$9,000 direct
Dates: 7/16 - 6/17

Title: A Novel In-Cell Screen for Antibacterials

Agency: University of Colorado at Boulder

Type: Innovative Seed Grant
Role: Principal Investigator
Costs: \$50,000 direct
Dates: 6/14 - 12/16

Title: Developing a Platform for *in vivo* Imaging of Bacterial Infection

Agency: Butcher Foundation
Type: Seed Grant
Role: Principal Investigator
Costs: \$75,000 direct
Dates: 4/14 - 3/15

Title: Host Pathways that Enable *Salmonella* Replication In Macrophages

Agency: NIH (NIAID)
Type: R21 AI099593
Role: Principal Investigator
Costs: \$419,375 total
Dates: 4/12 - 3/14

Title: Hemophagocytic Macrophages And Systemic *Salmonella* Infection

Agency: NIH (NIAID)
Type: R56 AI095395
Role: Principal Investigator
Costs: \$376,281 total
Dates: 9/11 - 2/12

Title: Persistent Systemic Infection of Mice by *Salmonella Enterica*

Agency: NIH (NIAID)
Type: R01 AI072492
Role: Principal Investigator
Costs: \$1,853,525 total
Dates: 6/07 - 5/13

Title: A Mammalian Cellular Niche for Chronic Bacteria

Agency: NIH (NIAID)
Type: R21AI076682
Role: Principal Investigator
Costs: \$323,525 total
Dates: 12/07 - 11/09

Title: The *Salmonella* RcsC Phosphorelay System and Virulence

Agency: NIH (NIAID)
Type: R56 AI063116
Role: Principal Investigator
Costs: \$320,257 total
Dates: 9/05 - 8/06

Fellowships that supported the research program

Title: Role of Host Lipids in *Salmonella* Replication within Macrophages

Agency: NIH (NIAID)
Type: NRSA Individual Post-Doctoral Fellowship Program
Role: Mentor (T. Nagy, Fellow)
Costs: \$52,190 per year
Dates: 3/12 - 3/15

Research Support From NIH in Non-Grant Form

Title: Bacterial Efflux Pump Modulators

Agency: National Institute for Allergy and Infectious Disease Pre-Clinical Services
Type: Pre-clinical testing of validated screening hits
Role: Principal Investigator
Costs: 3 compounds tested for ADME
Dates: 3/17 - 8/17

Invited Research Presentations

2023 Salmonella Biology Gordon Research Conference, Tuscany, Italy
2023 Duke University Immunology and Microbiology Department, NC
2022 University of Colorado, Anschutz Medical School, CO
2022 University of Florida, Gainesville, FL
2021 State University of New York at Stony Brook, NY
2018 NIAID Rocky Mountain Laboratory, Hamilton, NH
2018 Colorado State University, Fort Collins, CO
2017 University College of London, London, UK
2017 University of Edinburgh, Edinburgh, UK
2017 Pasteur Institute, Paris, France
2017 University of California Irvine Medical School, Irvine, CA
2017 Washington State University Veterinary School, Pullman WA
2017 University of California Davis Medical School, Davis, CA
2017 University of Georgia, Department of Microbiology, Athens, GA
2017 University of Nevada, Department of Biology, Las Vegas, NV
2016 American Society of Microbiology, *Salmonella* Meeting, Potsdam, Germany
2016 Wind River Conference on Prokaryotic Biology, Estes Park, CO
2015 FASEB Microbial Pathogenesis Meeting, Keystone, CO
2015 DARPA Technologies for Host Resilience, Denver, CO
2015 University of Washington Medical School, Seattle, WA
2014 NIH Rocky Mountain Laboratories, Hamilton, MT
2014 Stanford Research Institute International, Menlo Park, CA
2014 University of Colorado, Department of Microbiology, Denver, CO
2013 American Society of Microbiology, *Salmonella* Meeting, Boston, MA
2013 University of Ohio Medical School, Athens, OH
2013 American Society of Microbiology, General Meeting, Denver, CO
2013 State University of New York, Microbiology and Immunology, Buffalo, NY
2013 J. Craig Venter Institute, San Diego, CA
2012 Emory University, Department of Microbiology and Immunology, Atlanta, GA
2012 University of Illinois, Department of Animal Sciences, Urbana, IL
2012 University of Maryland, School of Medicine, Baltimore, MD

2012 NIAID Small Animal Models for Enteric Diseases Workshop, Bethesda, MD
 2012 Wind River Conference on Prokaryotic Biology, Las Vegas, NV
 2012 National Institute on Aging Post-Baccalaureate Program, Baltimore, MD
 2012 Oregon State University College of Veterinary Medicine, Corvallis, OR
 2012 Florida International University College of Medicine, Miami, FL
 2011 Microbial Pathogenesis: Mechanisms Of Infectious Disease, Snowmass, CO
 2011 Wind River Conference on Prokaryotic Biology, Estes Park, CO
 2011 Keynote Speaker, American Society of Microbiology Rocky Mountain Branch
 2009 American Society of Microbiology General Meeting, Philadelphia, PA
 2009 Department of Microbiology, Ohio State University, Columbus, OH
 2009 Tufts University Medical School, Boston, MA
 2009 Wind River Conference on Prokaryotic Biology, Estes Park, CO
 2009 Genetics and Molecular Biology, University of North Carolina, Chapel Hill, NC
 2009 Microbiology Graduate Group, University of California, Davis, CA
 2008 Department of Microbial & Molecular Pathogenesis, Texas A&M
 2008 Mycobacteria Research Laboratory Seminar, Colorado State University
 2007 FASEB Microbial Pathogenesis, Snowmass CO

Research presented was described in two meeting reviews:

1. Carruthers VB, Cotter PA, Kumamoto CA. Microbial pathogenesis: mechanisms of infectious disease. *Cell Host Microbe* 2007 Oct 11;2(4):214-9.

2. Lenz, LL, Andrews-Polymenis, HL. Silencing the alarm: insights into the interaction between host and pathogen. Conference on Microbial Pathogenesis: Mechanisms of Infectious Disease. *EMBO reports* 9, 27 - 32 (01 Jan 2008).

2007 American Society of Microbiology General Meeting, Toronto, Canada
 2006 Medical Microbiology Department, University of Wisconsin, Madison, WI
 2005 Applied Math Department, University of Colorado, Boulder, CO
 2005 Molecular Biology Department, University of Wyoming, Laramie, WY
 2005 Gordon Research Conference - Antimicrobial Peptides, Ventura, CA
 2005 University of Colorado Health Sciences Immunology Retreat, Estes Park, CO
 2005 Front Range Innate Immunity Meeting, Fort Collins, CO
 2003 American Society of Microbiology Salmonella Conference, Sardinia, Italy

TEACHING

Pedagogy and Course Development

2015 Development of an Antibiotic Discovery Research Laboratory Class with Dr. P. Harvey. This course is now one of three MCDB Freshman Discovery Labs.
 2009 Integration of active learning techniques into MCDB4330 (Immunology) in collaboration with Science Teaching Fellow Dr. M. K. Smith.
 2006 Participant, NSF & HHMI Summer Institute for Teaching, Madison WI

Non-classroom Teaching

1. Undergraduate researchers mentored in the laboratory:

P.M. Roeder Independent study S2022, F2022, Honors S2023
 C.A. Ewing Independent study F2020 – present, Honors S2023

Undergraduate Research Grant Awardee
 Z. Graham Independent study S2020 - F2021
 J. McLeod Nontraditional student, US Army Veteran
 Independent study S2018 - S2020
 First-author on published paper
 C. Satterlee Nontraditional student
 J. Colmenero Nontraditional student, US Army Veteran
 O. Bednarski Undergraduate Research Grant Awardee
 M. Edwards Honors *magna cum laude*, F2016
 MCDB Caplan-Craig Researcher Award, 2016, UROP, 2015
 Co-author on published paper
 G. Kreitz Undergraduate Research Grant Awardee
 Independent study, S2011 - F2012
 K. Hanson Honors *magna cum laude* S2011
 Undergraduate Research Grant Awardee
 Independent study, 2010
 K. Graham Independent study, S2010
 D. Jorgenson Honors *magna cum laude*, F2010
 Undergraduate Research Grant Awardee
 Independent Study, F2008 - S2010
 Co-author on published paper
 K. Tuttle Honors, F2007; Independent study, S2007
 D. Yamamoto Independent study, F2007
 J. Gilum Independent study, S2007
 L. Saccomano Independent study. F2006 - S2007
 T. Fenn Honors *summa cum laude*, F2006
 Undergraduate Research Grant Awardee
 Independent study, S2006
 C. Zielenski Independent study, S2005
 J. Quinn Honors, F2006
 Undergraduate Research Grant Awardee, F2003 - S2004 Independent study, S2006
 K. Metzler Honors *magna cum laude*, S2005
 Undergraduate Research Grant Awardee, F2004
 F. Leuke Regensburg, Germany exchange student, F2004 - S2005

2. Doctoral/Masters (PhD/MD) students thesis mentor:

J. Villanueva MCDB 2015 - 2022
 Stone Comprehensive Exam Awardee
 Current - Postdoctoral Fellow, University of Colorado Denver
 A. Reens MCDB 2013 - 2019
 Signaling and Cellular Regulation Training Grant Awardee
 E. McDonald MCDB PhD 2016
 Creative Training in Genetics Training Grant Awardee
 Current - Postdoctoral Fellow at the CDC, Fort Collins, CO
 J. Myatt MCDB MS 2007

R. Nix Current - Boulder Language Technologies Project Tutor
 MCDB MS 2007
S. Symons Current - Automation Engineer, Myriad Genetics Salt Lake City, UT
 Biochemistry MS 2007
 Current - Case Specialist at USDA, Denver, CO

3. Post-doctoral fellows mentored:

S.C. Allgood, 2022 - present
D. Evans, 2021 - 2022
J.L. Dombach, 2017- 2021
 Co-I on NIH R21 (2020 - 22)
T. A. Nagy, 2010 - 2020
 Ruth Kirschstein NRSA Awardee 2012 - 15
 Co-I on NIH R21 (2016 -18)
J. Podoll, 2015 - 2017
 Current - Senior Researcher at Recreo Pharmaceuticals, Boulder CO
H. Nick, 2013 -15
 Current - Postdoctoral Fellow, National Jewish Research Center, Denver, CO
E. Silva-Herzog, 2007-8, 2012 - 15
 Current - Master's in public health Program, George Washington University
M. C. Pilonieta, 2008 -15
 Abstract selected for oral presentation, 2011 American Society for Microbiology General Meeting,
 New Orleans LA
 Current - Instructor, Front Range Community College
C. English, 2011 - 2013
 Current - Applications Scientist at Intelligent Imaging Innovations, Denver, CO
M. W. McCoy, 2008 - 11
 Current - National Environmental Policy Act Reviewer at the US Environmental Protection Agency
K. Erickson, 2003 - 7
 NSF 2005 Travel Award
 Current - Senior Research Associate, University of CO

Classroom Teaching

2017 - 22
 MCDB Ethics Course, leader of 1 discussion session per semester
2006 - 09, 2011 - 14, 2016, 2018 - 2022
 Immunology, MCDB 4300/5300, 3 credits, 55 - 96 students; 4 graduate students
 1 semester per AY, 3 hours per week, managing TAs
 Role: Course Organizer; New Course Development (2006)
2016, 2018, 2019
 Antibiotic Discovery Laboratory Class, 1 lecture
2015
 Antibiotic Discovery Laboratory Class, MCDB 1171
 Course Organizer; New Course Development
2014, 2016

Integrated Physiology Ethics Course; 1 lecture
 2014, 2016
 Signaling and Cellular Regulation Course, Bchem, 2 lectures
 2005 - 14
 Graduate Core, MCDB 5210, 1-2 lectures
 2004 - 05
 Bacterial Disease Mechanisms, MCDB 4330, 3 credits, 20 - 30 students
 1 semester per AY, 3 hours per week
 Course Organizer; New Course Development

SERVICE

Scientific Community

1. Editor in Chief, scientific journal

Microbiology and Molecular Biology Reviews, American Society for Microbiology (ASM)
 2020 - Present

2. Peer reviewer for scientific journals (past 3 years)

American Chemical Society (ACS) Central Science
 ACS Infectious Diseases
 ASM Infection & Immunity (Editorial Board 2010 - 24)
 ASM Microbiology and Molecular Biology Reviews (Editor, 2014 - 20)
 Cell Host & Microbe
 Nature Communications
 PLoS Genetics
 PLoS Pathogens
 Proceedings of the National Academy of Sciences, USA

3.. Peer reviewer of grant applications

2023 NIH Infectious Diseases and Immunology (F07A) fellowship panel (Mar)
 2022 NIH Bacterial Pathogenesis (Jun)
 2022 NIH Host Interactions with Bacterial Pathogens (Jan)
 2021 NIH Topics in Bacterial Pathogenesis (Jun)
 2021 NIH Host Interactions with Bacterial Pathogens (Feb, Oct)
 2020 NIH Topics in Bacterial Pathogenesis (Oct)
 2019 NIH Infectious Disease Mechanisms, Alternate chair (Jun)
 2018 NIH Drug Discovery and Mechanisms of Antimicrobial Resistance (Mar)
 2017 - 19 Continuous Submission Privileges at NIH based on study section service
 2017 NIH Membrane Biology and Protein Processing
 2017 NIH Drug Discovery and Mechanisms of Antimicrobial Resistance
 2011 - 18 NIH Topics in Bacterial Pathogenesis 1 - 2x per year
 2016 NIH Biological Chemistry and Macromolecular Biophysics
 2016 - 17 American Kennel Club Canine Health Foundation
 2016 NIH Membrane Biology and Protein Processing
 2014 NIH Bacterial Pathogenesis, Ad Hoc

2013	United States-Israel Bi-national Science Foundation
2013	Italian Ministry of Health
2012	NIH Dynamics of Host-Associated Microbial Communities
2011	NIH Centers of Biomedical Research Excellence (COBRE)
2010	NIH Enterics Investigational Network Cooperative Research Center
2008	NIH Bacterial Pathogens Ad Hoc

4. Scientific meeting organizer, session organizer

Corresponding Chair, 1st *Salmonella* Biology and Pathogenesis Gordon Research Conference, June 2019. Supported by an ASM Conference Grant

Spearheaded successful application for a Salmonella Gordon Research Conference in June of 2017

Executive Committee Member for the Wind River Conference on Prokaryotic Biology 2013 - 2021

Organizer, 56th Wind River Conference on Prokaryotic Biology June 2013

Symposium Co-Organizer (Animal Models of Chronic Infection) – American Society of Microbiology General Meeting, Philadelphia, PA, May 2009

Symposium Organizer (Persistent Bacterial Infections) – American Society of Microbiology General Meeting, Toronto, Canada, May 2007

Organizer, Front Range Innate Immunity Group Meeting, 2004, 2006. Includes researchers from Boulder, UC Health Sciences Center, National Jewish Medical Research Center, and Colorado State

Boulder Campus

2017 - 22	Faculty Sponsor for 2017 Beckman Scholars Program to fund undergraduate research
2013 - 17	Faculty Director for the Office of the Vice Chancellor for Research Chair, Institutional Animal Care and Use Committee (IACUC) Guided CU Boulder's Animal Welfare Assurance Program out of probationary status with the NIH Office of Animal Laboratory Welfare, Spring of 2016
2016	Member, IACUC Coordinator Search Committee
2016	Member, Seed Grant Evaluation Committee
2015	Member, IACUC Director Search Committee
2015	Member, Veterinary Search Committee
2013	Member, Animal Program Task Force
2013	Member, Veterinary Search Committee
2005	Leadership Education for Advancement and Promotion Workshop

Department

2021 - 24	Member, Department Executive Committee (elected position)
2021 - 24	Chair, Faculty Evaluation Committee (elected position)
2019 - 23	Member, Undergraduate Curriculum Committee
2018 - 21	Member, Peer Teaching Observation Committee
2016, 19	Member, Promotion and Evaluation Committees

2018 - 19	Member, Graduate Admissions Committee
2015 -	Supervisor, MCDB Undergraduate Research Director
2013 - 17	Member, Department Executive Committee
2013 - 17	Chair, Undergraduate Curriculum Committee (elected position)
2012 - 13	Faculty Director, MCDB Transgenic Facility
2012 - 13	Member, Undergraduate Curriculum Committee
2010 - 14	Seminar Journal Club Faculty Representative
2005, 11, 15	Member, Faculty Search Committees
2010 - 11	Member, Comprehensive Examining Committees
2008 - 11	Member, Faculty Evaluation Committee
2006 - 09	Member, Undergraduate Curriculum Committee
2004 - 08	Member, Graduate Admissions Committee

Graduate Thesis Committees at U of Colorado (42 total)

MCDB (22) - Audelat (chair), Butler (chair), Bruni, DaPron, Flood, Flores (chair), Galati, Gonzalez, Hausberg, Janiszewski, Johnson, Menasche, Ordonez, Rickicki, Robertson, Ross, Spindler, Squires, Wichmann, Wright, Wrobel, Zabinsky

Biochemistry (9) - Gatzeva-Topalova, Hu, Kibby, McQuate, Minson, Sandoval, Smith, Van Engelenburg, Young

Chemical Engineering (8) - Aunins, Courtney, Erikson, McCollum, Mills, Reynolds, Stamo, Steele

Chemistry (3) - Barbor, Podoll, Townsend

Graduate Thesis Committee Member at Pasteur Institute, Paris France (1) - Rey

Graduate Thesis Committee Member at University of Nevada (1) - Immak

Undergraduate Thesis Committees (4) - Martiniko, Moreland, Roostan, Batan

PEER REVIEWED RESEARCH PUBLICATIONS

<http://www.ncbi.nlm.nih.gov/sites/myncbi/1h5uJU2Yze/bibliography/40136699/public/?sort=date&direction=descending>

1) **Detweiler CS**, Li JJ. [Cdc6p establishes and maintains a state of replication competence during G1 phase.](#) J Cell Sci. 1997 Mar;110 (Pt 6):753-63. doi: 10.1242/jcs.110.6.753. PubMed PMID: 9099949.

2) Owens JC, **Detweiler CS**, Li JJ. [CDC45 is required in conjunction with CDC7/DBF4 to trigger the initiation of DNA replication.](#) Proc Natl Acad Sci U S A. 1997 Nov 11;94(23):12521-6. doi: 10.1073/pnas.94.23.12521. PubMed PMID: 9356482; PubMed Central PMCID: PMC25024.

3) **Detweiler CS**, Li JJ. [Ectopic induction of Clb2 in early G1 phase is sufficient to block prereplicative complex formation in Saccharomyces cerevisiae.](#) Proc Natl Acad Sci U S A. 1998 Mar 3;95(5):2384-9. doi: 10.1073/pnas.95.5.2384. PubMed PMID: 9482894; PubMed Central PMCID: PMC19352.

4) Lee AK, **Detweiler CS**, Falkow S. [OmpR regulates the two-component system SsrA-ssrB in Salmonella pathogenicity island 2.](#) J Bacteriol. 2000 Feb;182(3):771-81. doi: 10.1128/JB.182.3.771-781.2000. PubMed PMID: 10633113; PubMed Central PMCID: PMC94342.

5) **Detweiler CS**, Cunanan DB, Falkow S. [Host microarray analysis reveals a role for the Salmonella response regulator phoP in human macrophage cell death.](#) Proc Natl Acad Sci U S A. 2001 May 8;98(10):5850-5. doi: 10.1073/pnas.091110098. Epub 2001 Apr 24. PubMed PMID: 11320214; PubMed Central PMCID: PMC33302.

- 6) Monack DM, **Detweiler CS**, Falkow S. [Salmonella pathogenicity island 2-dependent macrophage death is mediated in part by the host cysteine protease caspase-1](#). Cell Microbiol. 2001 Dec;3(12):825-37. doi: 10.1046/j.1462-5822.2001.00162.x. PubMed PMID: 11736994.
- 7) Chan K, Baker S, Kim CC, **Detweiler CS**, Dougan G, Falkow S. [Genomic comparison of Salmonella enterica serovars and Salmonella bongori by use of an S. enterica serovar typhimurium DNA microarray](#). J Bacteriol. 2003 Jan;185(2):553-63. doi: 10.1128/JB.185.2.553-563.2003. PubMed PMID: 12511502; PubMed Central PMCID: PMC145314.
- 8) **Detweiler CS**, Monack DM, Brodsky IE, Mathew H, Falkow S. [virK, somA and rcsC are important for systemic Salmonella enterica serovar Typhimurium infection and cationic peptide resistance](#). Mol Microbiol. 2003 Apr;48(2):385-400. doi: 10.1046/j.1365-2958.2003.03455.x. PubMed PMID: 12675799.
- 9) De Keersmaecker SC, Marchal K, Verhoeven TL, Engelen K, Vanderleyden J, **Detweiler CS**. [Microarray analysis and motif detection reveal new targets of the Salmonella enterica serovar Typhimurium HilA regulatory protein, including hilA itself](#). J Bacteriol. 2005 Jul;187(13):4381-91. doi: 10.1128/JB.187.13.4381-4391.2005. PubMed PMID: 15968047; PubMed Central PMCID: PMC1151768.
- 10) Erickson KD, **Detweiler CS**. [The Rcs phosphorelay system is specific to enteric pathogens/commensals and activates ydel, a gene important for persistent Salmonella infection of mice](#). Mol Microbiol. 2006 Nov;62(3):883-94. doi: 10.1111/j.1365-2958.2006.05420.x. Epub 2006 Sep 29. PubMed PMID: 17010160; PubMed Central PMCID: PMC2895427.
- 11) Karimpour-Fard A, Detweiler CS, Erickson KD, Hunter L, Gill RT. [Cross-species cluster co-conservation: a new method for generating protein interaction networks](#). Genome Biol. 2007;8(9):R185. doi: 10.1186/gb-2007-8-9-r185. PubMed PMID: 17803817; PubMed Central PMCID: PMC2375023.
- 12) Nix RN, Altschuler SE, Henson PM, **Detweiler CS**. [Hemophagocytic macrophages harbor Salmonella enterica during persistent infection](#). PLoS Pathog. 2007 Dec;3(12):e193. doi: 10.1371/journal.ppat.0030193. PubMed PMID: 18085823; PubMed Central PMCID: PMC2134957.
- 13) Pilonieta MC, Erickson KD, Ernst RK, **Detweiler CS**. [A protein important for antimicrobial peptide resistance, Ydel/OmdA, is in the periplasm and interacts with OmpD/NmpC](#). J Bacteriol. 2009 Dec;191(23):7243-52. doi: 10.1128/JB.00688-09. Epub 2009 Sep 18. PubMed PMID: 19767429; PubMed Central PMCID: PMC2786563.
- 14) Brown DE, McCoy MW, Pilonieta MC, Nix RN, **Detweiler CS**. [Chronic murine typhoid fever is a natural model of secondary hemophagocytic lymphohistiocytosis](#). PLoS One. 2010 Feb 26;5(2):e9441. doi: 10.1371/journal.pone.0009441. PubMed PMID: 20195482; PubMed Central PMCID: PMC2829187.
- 15) Silva-Herzog E, **Detweiler CS**. [Salmonella enterica replication in hemophagocytic macrophages requires two type three secretion systems](#). Infect Immun. 2010 Aug;78(8):3369-77. doi: 10.1128/IAI.00292-10. Epub 2010 Jun 1. PubMed PMID: 20515933; PubMed Central PMCID: PMC2916269.
- 16) Pilonieta MC, Nagy TA, Jorgensen DR, **Detweiler CS**. [A glycine betaine importer limits Salmonella stress resistance and tissue colonization by reducing trehalose production](#). Mol Microbiol. 2012 Apr;84(2):296-309. doi: 10.1111/j.1365-2958.2012.08022.x. Epub 2012 Mar 9. PubMed PMID: 22375627; PubMed Central PMCID: PMC3323685.
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METHODS

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PATENTS

International (PCT) Patent Application No. PCT/US18/24640

The Regents of the University of Colorado

Title: Small Molecule Inhibitors of Bacterial Efflux Pumps and Methods Of Using Same

Filing Date: March 27, 2018

Inventors: **Detweiler, CS**, Reens AL, Crooks AL

U.S. Application No. 16/497,315

The Regents of the University of Colorado

Title: Small Molecule Inhibitors of Bacterial Efflux Pumps and Methods of Using Same

Filing Date: September 24, 2019

Inventors: **Detweiler, CS**, Reens AL, Crooks AL

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The Regents of the University of Colorado

Title: *Bacterial Efflux Pump Inhibitors and Methods of Use*

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Inventors: **Detweiler, CS**, Crooks AL

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Title: Small Molecule Inhibitors of Bacterial Efflux Pumps And Methods of Using Same

Inventors: Reens, AL, Crooks AL, **Detweiler, CS**

US Provisional Patent Application No. 63/340,529

Title: Small molecule compositions for inner bacterial membrane disruption and methods of use thereof

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Inventors: **Detweiler, CS**, Dombach, JL

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Inventors: **Detweiler, CS**, Crooks AL, Ochsner, U, Sun, X, Graham, J

U.S. Provisional Application No. 63/394,457

The Regents of the University of Colorado

Title: METHODS FOR TREATING BACTERIAL INFECTION

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Inventors: **Detweiler, CS**