

CURRICULUM VITAE

STEVEN M. JULIO, Ph.D.

Department of Biology
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EDUCATION

Ph.D., Biochemistry and Molecular Biology University of California, Santa Barbara	2001
B.S., Biology, Westmont College, Santa Barbara, CA	1992

EMPLOYMENT

Associate Professor Department of Biology, Westmont College	2012-present
Assistant Professor Department of Biology, Westmont College	2006 - 2012
Philip Morris Postdoctoral fellow University of California, Santa Barbara	2003-2006
Lecturer, Summer Sessions University of California, Santa Barbara	2003
Research Scientist I, Remedyne Corporation Santa Barbara, CA	2001-2003
Research/Teaching Assistant University of California, Santa Barbara	1992-2001

PROFESSIONAL RESPONSIBILITIES

External referee, <i>Molecular Microbiology</i>	2011-present
External referee, <i>Infection and Immunity</i>	2011-present

PROFESSIONAL SOCIETIES

American Society for Microbiology	2001-present
American Scientific Affiliation	2002-present

AWARDS AND HONORS

Westmont College Bruce and Adaline Bare Teacher of the Year Award in Natural and Behavioral Sciences	2010
Westmont College Professional Development Grant	2006, 2010
Philip Morris External Research Program Postdoctoral Fellowship	2004
Graduate Student Seminar Series Senior Grad Student Award for best research seminar	2000
Graduate Student Fee Fellowship	1994

PUBLICATIONS (Westmont student co-authors underlined; publications accepted during Westmont faculty appointment with asterisk.)

- *1. Kaut, C. S., Duncan, M. D., Kim, J. Y., Maclaren, J., Cochran, K., and **S. M. Julio**. 2011. A novel sensor kinase is required for *Bordetella* to colonize the lower respiratory tract. *Infect Immun*, **79**(8): 3216-3228.
- *2. **Julio, S. M.**, Inatsuka, C., Mazar, J., Dietrich, C., Relman, D., and P. Cotter. 2009. Natural-host animal models indicate functional interchangeability between the filamentous hemagglutinins of *Bordetella pertussis* and *Bordetella bronchiseptica* and reveal a role for the mature C-terminal domain, but not the RGD, during infection. *Mol. Microbiol.* **71**(6):1574-1590
- *3. Heithoff, D. M., G. Badie, **S. M. Julio**, E. Y. Enioutina, R. A. Daynes, R. L. Sinsheimer, and M. J. Mahan. 2007. In vivo selected mutations in methyl-directed mismatch repair suppress the virulence attenuation of *Salmonella* dam mutant strains following intraperitoneal, but not oral infection of naïve mice. *J. Bacteriol.* **189**: 4708-4717.
4. Inatsuka, C. S., **S. M. Julio**, and P. A. Cotter. 2005. *Bordetella* filamentous hemagglutinin plays a critical role in immunomodulation, suggesting a mechanism for host specificity. *Proc. Natl. Acad. Sci. USA.* **102**:18578-18583.
5. **Julio, S. M.** and P. A. Cotter. 2005. Characterization of the filamentous hemagglutinin-like protein FhaS in *Bordetella bronchiseptica*. *Infect Immun.* **73**(8):4960-4971.
6. **Julio, S. M.**, D. M. Heithoff, and M. J. Mahan. 2002. DNA adenine methylase overproduction in *Yersinia pseudotuberculosis* alters YopE expression and secretion and host immune responses to infection. *Infect Immun.* **70**(2):1006-1009.

7. **Julio, S. M.**, D. M. Heithoff, D. Provenzano, K. E. Klose, R. L. Sinsheimer, D. A. Low, and M. J. Mahan. 2001. DNA adenine methylase is essential for viability and plays a role in the pathogenesis of *Yersinia pseudotuberculosis* and *Vibrio cholerae*. *Infect Immun.* **69**:7610-7615.
8. **Julio, S. M.**, D. M. Heithoff, and M. J. Mahan. 2000. *ssrA* (tmRNA) plays a role in *Salmonella enterica* serovar Typhimurium pathogenesis. *J. Bacteriol.* **182**:1558-1563.
9. Conner, C. P., D. M. Heithoff, **S. M. Julio**, R. L. Sinsheimer, and M. J. Mahan. 1998. Differential patterns of acquired virulence genes distinguish *Salmonella* strains. *Proc. Natl. Acad. Sci. USA.* **95**:4641-4645.
10. **Julio, S. M.**, C. P. Conner, D. M. Heithoff, and M. J. Mahan. 1998. Directed chromosomal deletions of *Salmonella typhimurium*- specific genes induced during infection. *Mol. Gen. Genet.* **258**:178-181.
11. Heithoff, D. M., C. P. Conner, P. C. Hanna, **S. M. Julio**, U. Hentschel, and M. J. Mahan. 1997. Bacterial infection as assessed by *in vivo* gene expression. *Proc. Natl. Acad. Sci. USA.* **94**:934-939.

PRESENTATIONS/ABSTRACTS (Westmont student co-authors underlined; accepted presentations during Westmont faculty appointment with asterisk)

* Midgley, J., LaBarba D., Wheeler, M., and **S. M. Julio**. "Examining the role of *plrS* in *Bordetella bronchiseptica* virulence gene expression" In: The West Coast Biological Sciences Undergraduate Research Conference, Spring 2013.

Midgley, J., Gardner, S., McHargue, B., West, J., Iba, W., and **S. M. Julio**. "Analysis of microarray-identified genes that are regulated by PlrS in *Bordetella bronchiseptica*" In Westmont College Undergraduate Research Symposium, Spring 2013.

Midgley, J., LaBarba D., Wheeler, M., and **S. M. Julio**. "Examining the role of *plrS* in *Bordetella bronchiseptica* virulence gene expression" In: In Westmont College Undergraduate Research Symposium, Fall 2012.

Beard, M., Bond, A., Burks, A., Ramirez, J., and **S. M. Julio**. "Microarray-based analysis of the PlrAS two-component regulator of *Bordetella bronchiseptica*" In: Westmont College Undergraduate Research Symposium, Spring 2012.

Burks, A., Kleen, S., Ramirez, J., and **S. M. Julio**. "Evaluating the role of PlrS as a regulator of gene and protein expression in *Bordetella bronchiseptica*" In: Westmont College Undergraduate Research Symposium, Fall 2011

Burks, A., Kleen, S., Ramirez, J., and **S. M. Julio**. "Evaluating the role of the sensor kinase PlrS from *B. bronchiseptica* in response to innate and adaptive immunity" In: Westmont College Undergraduate Research Symposium, Fall 2011.

* Kaut, C. S., Duncan, M. D., Kim, J. Y., Maclaren, J., Cochran, K., and **S. M. Julio**. 2011. "A novel sensor kinase is required for *Bordetella* to colonize the lower respiratory tract" In: The American Society for Microbiology General Meeting 2011, June 2011.

Cochran, K., Conley, Z., Ramirez, J., Roberts, S., and **S. M. Julio**. "Phenotypes associated with PIR-mediated virulence in *Bordetella bronchiseptica*" In: Westmont College Undergraduate Research Symposium, Spring 2011

Kim, J., and **S. M. Julio**. "Characterization of the virulence phenotype of BB0264 in *Bordetella bronchiseptica*" In: Westmont College Undergraduate Research Symposium, Fall 2010

*Duncan, M., Williams, S., Cochran, K., and **S.M. Julio**. "Disruption of the BB0264/BB0265 genes in *Bordetella* affects virulence" In: West Coast Biological Sciences Undergraduate Research Conference, Spring 2010.

Duncan, M., Williams, S., Cochran, K., and **S.M. Julio**. "Disruption of the BB0264/BB0265 genes in *Bordetella* affects virulence" In: Westmont College Undergraduate Research Symposium, Spring 2010

*Pritchett, J.C., and **S. M. Julio**. "FhaL from *B. bronchiseptica* plays a role in colonization of the mouse respiratory tract" In: Southern California Conference for Undergraduate Research, Fall 2009

Pritchett, J.C., and **S. M. Julio**. "FhaL from *B. bronchiseptica* plays a role in colonization of the mouse respiratory tract" In: Westmont College Undergraduate Research Symposium, Fall 2009

Maclaren, J., and **S. M. Julio**. "A filamentous hemagglutinin-like C-terminal domain is required for FhaS to function as an adhesin in *Bordetella bronchiseptica*" In: Westmont College Undergraduate Research Symposium, Fall 2008

Duncan, M., Maclaren, J., Kaut, S., and **S. M. Julio**. "Analysis of the virulence properties of the *Bordetella bronchiseptica* two-component regulator 0264/0265" In: Westmont College Undergraduate Research Symposium, Fall 2008

Downend, N., Nannepaga, S., Grieco, E., and **S. M. Julio**. "Characterization of the Surface-Expressed FhaS Protein in *Bordetella* Infection" In: Westmont College Undergraduate Research Symposium, Spring 2008

Kaut, C., Hoesterey, K., Downend, N., and **S. M. Julio**. "Analysis of a *Bordetella bronchiseptica* Two-Component Regulator Required for Virulence" In: Westmont College Undergraduate Research Symposium, Spring 2008

Hammer, B., Zirschky, K., Valladares, C., Johnson, J., Newton, T., Ashley, J., Nannepaga, S., **Julio, S. M.**, and M. N. Masuno. "Investigating Pacific Coast Sponges

for Novel Marine Natural Products with Anti-bacterial Activity” In: Westmont College Undergraduate Research Symposium, Spring 2008

*Kaut, C. S. and **S. M. Julio**. “Analysis of *Bordetella bronchiseptica* Two-Component Regulators in Respiratory Tract Infection” In: Southern California Conference for Undergraduate Research, Fall 2007

Julio, S. M., C.S. Inatsuka, and P. A. Cotter. “The C-terminal Domain of Filamentous Hemagglutinin (FHA) is Required for Lower Respiratory Tract Colonization and Immunomodulation” In: Eighth International Symposium: Saga of the Genus *Bordetella*, Institut Pasteur, 2006.

Julio, S. M. “*Bordetella* pathogens and the immune system: the great balancing act” UCSB Undergraduate Research Colloquium, 2006 (invited speaker).

Julio, S. M. “How *Bordetella* Cause Respiratory Infections” UCSB Undergraduate Research Colloquium, 2005 (invited speaker).

Julio, S. M., and P. A. Cotter. “Characterization of the FHA-like Protein FhaS in *Bordetella bronchiseptica*” In: American Society for Microbiology, General Meeting 2005.

Inatsuka, C. S., **S. M. Julio**, and P. A. Cotter. “*Bordetella bronchiseptica* Expressing Filamentous Hemagglutinin (FHA) from *Bordetella pertussis* Reveals a Critical Role for FHA in the Induction of an Inflammatory Response” In: American Society for Microbiology, General Meeting 2004.

Xiang, R., K. S. Cooke, **S. M. Julio**, A. J. Dahlsten, R. Ballester, R. A. Reisfeld, and K. M. Zsebo. “Single Dose of Remestim-CEA Oral Vaccine Protects Against Pulmonary Metastases” In: Gene-Based Vaccines: Mechanisms, Delivery Systems and Efficacy (Keystone Symposia) 2002.

Heithoff, D. M., **S. M. Julio**, and M. J. Mahan. “The Role of DNA Methylation in Controlling Bacterial Virulence” In: American Society for Microbiology, General Meeting 2001.

Julio, S. M. “Vaccine development using *Salmonella typhimurium* DNA adenine methylase mutants” In: Westmont College NBS Seminar Series, Santa Barbara Ca, 2000 (invited speaker)

FORMAL TEACHING EXPERIENCE

University of California, Santa Barbara
Department of Molecular, Cellular, and Developmental Biology

MCDB 1A – *Introduction to biochemistry, cell biology,* 2003

development, and genetics

MCDB 1B – *Introduction to animal and plant physiology* 2003

Westmont College, Department of Biology

BIO-006	<i>General Biology II (Animal physiology)</i>	2006-present
BIO-102	<i>Physiology, with laboratory</i>	2006-present
BIO-132	<i>Molecular Biology, with laboratory</i>	2007-present
BIO-195	<i>Seminar in Biological Literature</i>	2007-present
BIO-196	<i>Seminar in Bioethics</i>	2007-present
BIO-155	<i>Infectious Disease and Immune Response</i>	2008-present
BIO-114L	<i>Laboratory in Genetics</i>	2009-present

SUPERVISED RESEARCH WITH UNDERGRADUATES – Westmont College

Alina Logerquist	Fall 2006 – Spring 2007
Callan Kaut (<i>Major honors, 2008</i>)	Summer 2007 – Summer 2008
Shreya Nannepaga	Fall 2007 – Spring 2008
Roberto Valladares	Fall 2007
Nathan Downend	Spring 2008
Elisa Grieco	Spring 2008
Kyle Hoesterey	Spring 2008
Mark Duncan	Summer 2008 – Fall 2009
Josh Maclaren	Summer 2008 – Fall 2009
Preston Angell	Fall 2008 – Spring 2009
Jenna Stephens	Spring 2009
Josh Pritchett	Summer 2009 – Fall 2010
Stefanie Williams	Fall 2009
Zack Conley	Fall 2009 – Spring 2011
Keith Cochran	Fall 2009 – Spring 2011
Je Yei Kim	Summer 2010
Sarah Roberts	Fall 2010 – Spring 2011
Samantha Kleen	Summer 2011
Amanda Burks	Fall 2010 – Spring 2012
Jose Ramirez	Fall 2010 – Spring 2012
Megan Beard	Fall 2011 – Spring 2012
Aleah Bond	Fall 2011 – Spring 2012
Michelle Wheeler	Spring 2012 – Summer 2012
Dean LaBarba	Summer 2012
Jeff Midgley	Summer 2012 – Spring 2013
Jacob West	Fall 2012
Brittany McHargue	Fall 2012 – Summer 2013

SERVICE – Westmont College and Community*A. Service to the institution at large*1. Committee work

Chair, Professional Development Committee	Fall2008–Spring 2009
Off-Campus Programs Committee	Fall 2009 – Spring 2012
Institutional Review Board (1 semester replacement)	Fall 2012
Faculty Council (elected as 1 semester replacement)	Spring 2013

2. Other, arranged chronologically from start date

Keynote speaker, Celebration of Summer Research Symposium	Fall 2006
Phi Kappa Phi student induction dinner – faculty host	Spring 2007 and Spring 2011
Campus host: Invited Speaker (Peggy Cotter, UCSB) for Natural/Behavioral Sciences Seminar Series	Spring 2007
Co-organizer – Student/Faculty Research Lunches	Summer 2007
Secretary of the Faculty	Fall 2007 – Spring 2008
Panelist, New Faculty Workshop	Fall 2007 and Fall 2008
Faculty participant, Spring Sing	Spring 2008 Spring 2009
Selection committee, David K. Winter Servant Leadership Award	Spring 2009 and Spring 2010
Ad hoc committee to review the Westmont College	Fall 2009

academic home page (invitation by the Provost)	
Search committee, Tenure-track position in Kinesiology	Fall 2010
Organizer, Natural and Behavioral Sciences Seminar Series	Fall 2010 – present
Interviewer for Monroe Scholar candidates	Spring 2011
Devotional presentation at Faculty meeting	Fall 2011
Faith/Science Faculty Book Discussion Group	Fall 2008 Fall 2009 Fall 2011 Fall 2012
Presentation at first-year faculty Faith/Learning Seminar	Spring 2012 (invited)
Chapel Ash Wednesday service; ash provider	Spring 2012
Panel member, Page men discussion “Living as a Godly man”	Spring 2012
Spring Sing kickoff participant	Spring 2012
Summer faculty assessment workshop: writing across the curriculum	Summer 2012
Faculty search committee: Kinesiology open position	Fall 2012 – Spring 2013
Discussion panel: Faculty Reading Group on Implications of Darwinism and Christianity	Fall 2012
Presentation to Board of Trustees on Faculty/Student collaborative research	Fall 2012
Panel member: Parents’ Weekend discussion on sophomore/junior student time management	Spring 2013
Presentation to Board of Advisors on Faculty/Student collaborative research	Spring 2013

B. Service on behalf of the Biology department

Biology Department Representative, Westmont College Preview Days	Spring 2007; Spring/Fall 2008 Fall 2009 Fall 2010 Spring 2010 Fall 2011
Introduction of Outstanding Biology Major, Chapel	Spring 2008 Spring 2010 Spring 2011
Keynote speaker, Biology Department Chapel	Fall 2008
Organizer, Biology Department Chapel	Fall 2008 Fall 2009 Fall 2010 Fall 2012
Search committee, Tenure-track position in Biology	Fall 2010
Department Reader, Commencement	Spring 2010
Coordinator and report writer, Annual departmental assessment activity	Summer 2011

C. Service on Student Major Honors Committees (* denotes committee chair)

<i>Michelle Evans</i>	2006-2007
<i>Alaina Phillips</i>	2007-2008
<i>Roberto Valladares</i>	2007-2008
<i>*Callan Kaut</i>	2007-2008
<i>Brittney Hammer</i>	2008-2009
<i>Taylor Judkins</i>	2009-2010
<i>Christine Binkley</i>	2009-2010
<i>Angela Do</i>	2009-2010
<i>Callie Howland</i>	2010-2011
<i>Jeff Kuwahara</i>	2010-2011
<i>Katherine Shaum</i>	2010-2011
<i>William Hoshberger</i>	2010-2011
<i>Rachel Teranishi</i>	2010-2011
<i>Samantha Gardner</i>	2011-2012
<i>Kelsey Cannon</i>	2011-2012
<i>David Thompson</i>	2012-2013
<i>*Brittany McHargue</i>	2013

D. Church and community service

Sunday School Leader, grade 4, Santa Barbara Community Church	Fall 2010 – Spring 2011
Sunday School Teacher, Kindergarten, Santa Barbara Community Church	Summer 2008 - Spring 2010
Christmas Choir, Santa Barbara Community Church	Fall 2007 and Fall 2008
Nature hike leader for Peabody Charter School	Summer 2011
Advisor for science project for San Marcos High School	Spring 2012
Advisor for science project for La Colina Junior High School and California State Science Fair	Spring 2013