

Curriculum Vita

Christopher A. Hall

Department of Biology

School of Mathematical and Natural Sciences

Berry College

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Current Position:

Associate Professor of Biology

Visiting Researcher, Centers for Disease Control and Prevention, Disease Ecology Branch

Berry College One Health Program

School of Mathematical and Natural Sciences

Department of Biology

Berry College

Mount Berry, GA 30149

Education:

2000 Ph.D. Immunology/Cellular Biology

Department of Cellular Biology

College of Arts and Sciences

University of Georgia

Athens, GA

1993 M.S., Immunology/Immunochemistry

Department of Medical Microbiology

College of Veterinary Medicine

University of Georgia

Athens, GA

1984 B.A., Biochemistry

College of Agriculture

University of Georgia

Athens, GA

Programs and Courses Developed

One Health Program/One Health Minor (Numerous courses)
 Tropical Biomedicine and Public Health in Cuba (BIO480, Cuba)
 Concepts in One Health (OHS200)
 Epidemiology and Public Health (BIO353WI)
 Immunology BIO352WI (Writing Intensive)
 Tropical Disease Ecology and Biomedicine (BIO480, Costa Rica)
 Tropical Disease Workshop (BIO480, Ecuador)
 Comparative Animal Physiology (BIO303)
 Great Neglected Diseases (BIO107)
 Medical Parasitology (BIO335)
 Senior Seminar (BIO490)

Other Courses

Principals of Cell Biology BIO111 (Majors)
 Animal Diversity and Evolution BIO202 (Majors)
 Human Anatomy and Physiology 1204 & 1205
 Advanced Cellular and Molecular Biology BIO362 (Guest Lecturer)
 Cellular Biology BIO305 (Guest Lecturer)
 Co-faculty for 2003 and 2006 Tropical Disease Workshop in Ecuador

- *Each of the above courses, except Epidemiology and Senior Seminar, has an associated laboratory section. BIO335, BIO352, and BIO353 are certified "Writing Intensive".*

Honors and Awards:

2015 Lou and Dave Garrett Award for Exemplary Teaching
 2002 -16 Chair, Resolutions Committee, Southeastern Society of Parasitologists
 2012 President, Southeastern Society of Parasitologists
 2011 President-elect of Southeastern Society of Parasitologists
 2010 Invited speaker, Loyola University, Clemson University
 2009 Faculty facilitator to the Southeastern Center for Emerging Biological Threats.
 2008 *Beta Beta Beta* Invited Speaker. Middle Tennessee State University.
 2007 Immunology Session Chair; North American Parasitology Congress, Merida, Mexico.
 2007 Invited Speaker May 2007 Southeastern Center for Emerging Biological Threats, Duke University.
 2007 Invited Speaker April 2007 ASIANetwork Conference. Chicago, IL.
 2006 Elected to the Board of Directors, Coosa River Basin Initiative
 2006 Invited attendee to the National Disaster Medical Service (NDMS) Conference in Reno, NV. April 22-26.
 2006 Awarded funding through the Freeman Foundation to participate in the School for International Studies program on Health Care Issues in China.
 2005 Selected Participant; Curriculum for Undergraduate Research Grant Writing Workshop, Pueblo, CO.
 2004 Elected to the Board of Directors, Cumberland Island Museum of Natural History.
 2004 Session Chair, Kinetoplastid Section, Annual meeting of the American Society of Tropical Medicine and Hygiene. Miami Beach, FL November, 2004
 2004 Sigma Xi Scientific Research Honor Society
 2003 Faculty mentor for the Tropical Disease Workshop in Ecuador.

2003 National Disaster Medical Service (NDMS) Communications Officer
 2002 Named to the National Disaster Medical Services (NDMS).
 2002 Berry College Biology Club advisor
 1999 University of Georgia Outstanding Teaching Award
 1999 Head Teaching Assistant for Physiology/Anatomy 2210
 1998 Head Graduate Teaching Assistant for BIO 1107
 1998 Byrd-Dunn Award for Outstanding Student Research
 1993-98 Awarded NIH Pre-doctoral Fellowship in Parasitology and Vector Biology
 1996 Session Chair: Southeastern Society of Parasitology
 1995 Graduate Student Representative for Faculty Hire Search Committee
 1994 American Association of Immunologists Advanced Immunology Course
 1993 “Best Student Presentation”, Departmental Symposia, Department of Medical Microbiology, College of Veterinary Medicine, University of Georgia.

Publications:

Paul T. Cantey, Susan L. Stramer, Rebecca L. Townsend, Hany Kamel, Karen Ofafa, Charles W. Todd, Mary Currier, Sheryl Hand, Wendy Varnado, Ellen Dotson, **Chris Hall**, Pamela L. Jett, Susan P. Montgomery. 2012. The United States *Trypanosoma cruzi* Infection Study: Evidence for vector-borne transmission of the parasite that causes Chagas disease among United States blood donors. *Transfusion*. [Volume 52, Issue 9](#), pages 1922–1930, September 2012

E. Blizzard, C. Davis, S. Henke, D. Long, **C. A. Hall**, and M. Yabsley. 2011. Distribution, prevalence, and genetic characterization of *Baylisascaris procyonis* in selected areas of Georgia. *Journal of Parasitology*, 96(6), 1128-1133.

C. A. Hall, Emily Pierce, Ashley Wimsatt, Traci Hobby-Dolbeer, and Bradley Meers. 2010. “Virulence and vertical transmission of two genotypically and geographically diverse isolates of *Trypanosoma cruzi*.” *Journal of Parasitology* 96:2 371-376.

Montor-Morales, J. and **C. A. Hall**. 2007. “The host-parasite neuroimmunoendocrine network in schistosomiasis: consequences to the host and the parasite.” Invited Review, *Parasite Immunology*. 29 (12). pp. 599-609.

Hall, C. A. 2007 “Incorporation of a Study Abroad Program on Traditional Chinese Medicine into a Pre-Medical Curriculum” Requested contribution to the AsiaNetwork Exchange Newsletter. Vol. XV, No. 1, pp. 26-27.

Hall, C.A., C. Burkhalter, M. Yabsley, and T. Norton. 2007 “*Trypanosoma cruzi* prevalence and epidemiologic trends in lemurs on St. Catherines Island, GA.” *Journal of Parasitology* 93(1) pp. 93-96.

Hall, C.A., T. Hobby, and M. Cipollini. 2006. “Efficacy and Mechanisms of α -Solasonine and α -Solamargine-Induced Cytolysis on Two Strains of *Trypanosoma cruzi*.” *Journal of Chemical Ecology*. 32:11, 2405-2416.

Hall, C.A., M. Eugino, and R.T. Damian. 2004 “Antigen Presenting Cells Emigrating From Skin Exposed to Attenuated *Schistosoma mansoni* Cercariae Activate Lymphoid Cells and Mediate Protection in C57Bl/6 Mice.” *Journal of Parasitology*. Vol. 90, 4. 733-739.

Hall, C.A., G. G. Beach, and W.L. Ragland. 1993. "Serum levels of Avian Thymic Hormone." Avian Immunology in Progress. 62: 125-130.

Hall, C.A., G.G. Beach, and W.L. Ragland. 1991. "Development and characterization of a monoclonal antibody for avian thymic hormone (ATH)." Hybridoma, Vol. 10, 5: 575-582.

Scientific Presentations: Last 9 years only.

- 2017 "Trypanosoma cruzi prevalence in rodent populations on the Berry College campus." Kellie Soafer, Christopher A. Hall, and William Nicholson. Southeastern Society of Parasitologists annual meeting, Charleston, SC March, 2017.
- 2017 "Naphthalene-based inhibition of *Trypanosoma cruzi in vitro* follows in silico predictions." Mary V. Shoup, Alfred Harding, Abigail Willemse, and Christopher A. Hall. Southeastern Society of Parasitologists annual meeting, Charleston, SC March, 2017.
- 2017 "Prevalence of *Trypanosoma cruzi* among rodent populations in northwest Georgia." Kellie Soafer, Christopher A. Hall, and William Nicholson. Center for Tropical and Emerging Global Diseases annual symposium. Athens, GA April, 2017.
- 2017 "*In vitro* assays confirm *in silico* predictions for REL-1 binding by naphthalene-based compounds." Mary V. Shoup and Christopher A. Hall. Center for Tropical and Emerging Global Diseases annual symposium. Athens, GA April, 2017.
- 2016 "An in Vitro Examination on the Efficacy of Naphthalene-based Compounds on Inhibiting the REL1 Protein of *Trypanosoma cruzi*." Abigail Willemse, Alfred Harding, and Chris A. Hall. Southeastern Society of Parasitologists annual meeting. Fort Mill, S.C. March 2016
- 2016 "Results of DNA vaccination with TSA-1 and Tc24 encoding plasmids to inhibit congenital transmission of *T. cruzi* in ICR mice." Kellie Soafer, Abigail Willemse, and Chris A. Hall. Southeastern Society of Parasitologists annual meeting. Fort Mill, S.C. March 2016
- 2016 "Evaluating the risk factors for *Trypanosoma cruzi* infection in humans and domestic canines in the Yucatan peninsula." Natalie Wickenkamp and Chris A. Hall. Student scholarship symposium. Berry College. April 2016.
- 2015 "*In silico* examination of the efficacy of naphthalene-based RNA editing inhibitors in *Trypanosoma cruzi* and *Leishmania major*." Alfred Harding, Abigail Willemse, Christopher Hall, and Dominic Qualley. Southeastern Society of Parasitologists Annual meeting. April 9-11 Blacksburg, VA.

- 2014 “Population dynamics and prevalence of *Trypanosoma cruzi* infection in triatomine vectors and reservoir hosts on a barrier island in the southeastern United States.” Chris A. Hall¹, Carol Ruckdeschel², and Katie Edendfield¹. International Congress on Parasitology (ICOPA), Mexico City, Mexico, August, 2014.
- 2014 “Evidence of enhanced infectivity of the North American Type IV strain of *Trypanosoma cruzi* for human placental syncytial trophoblast cells.” Chris A. Hall, Jennifer Patonay, and Casey Underhill. International Congress on Parasitology (ICOPA), Mexico City, Mexico, August 2014
- 2014 “One of a kind: *A novel One Health program at the undergraduate level.*” Chris A. Hall. Department of Biology, Berry College, Mount Berry, GA, Southeastern Society of Parasitologists Annual meeting. Georgia Southern University, April, 2014
- 2013 “Distribution and prevalence of *T. cruzi* infection in *Triatoma sanguisuga* spp. from the southeastern United States. Reagin, Katie*, Gabriel Lugo, and Chris A. Hall. Department of Biology, Berry College, Mount Berry, GA, Southeastern Society of Parasitologists Annual meeting. Bowling Green, KY April, 2013
- 2013 “*Triatoma sanguisuga* spp. population and lifecycle dynamics on a barrier island. Reagin, Katie*¹ Carol Ruckdeschel,² and Chris A. Hall¹. ¹Department of Biology, Berry College, Mount Berry, GA. ²Cumberland Island Museum of Natural History, Cumberland Island, GA Southeastern Society of Parasitologists Annual meeting. Bowling Green, KY April, 2013
- 2011 “The role of host-mediated phagocytosis in *Trypanosoma cruzi* invasion of placental trophoblast cells.” Casey Underhill and Chris Hall. Annual meeting of the Southeastern Association of Parasitology. April 7-9. Unicoi State Park, Helen, GA
- 2010 “An in vitro cell culture model confirms that the Type IIa strain of *Trypanosoma cruzi* is adapted to trans-placental transmission.” Jennifer Patonay and Chris A. Hall. 12th International Congress on Parasitology (ICOPA). Melbourne, Australia. August, 16-20th, 2010.
- 2010 “The enhanced ability of the Type IIa strain of *Trypanosoma cruzi* to be congenitally transferred is correlated to its ability to infect placental trophoblast cells.” Jennifer Patonay and Chris A. Hall. Annual meeting of the American Society of Parasitologists, Colorado Springs, Colorado. June 22 – 25.
- 2010 “Evaluation of the roles of complement and temperature in avian resistance to *Trypanosoma cruzi* infection.” Whitney Bullard, Casey Underhill, Nicole Acuff, and Chris A. Hall. Annual meeting of the American Society of Parasitologists, Colorado Springs, Colorado. June 22 – 25.

- 2010 “*Trypanosoma cruzi* in the southeastern United States: an evolutionary model for the adaptive dynamics of a vector-borne infectious disease?” Invited Speaker, March 5th, Clemson University, Department of Biology.
- 2010 “Awww Mom? Evidence for strain associated differences in congenital transmission of the Chagas parasite.” Invited Speaker, Loyola University, New Orleans, LA, April 20th.
- 2010 “Evidence for an Enhanced Infectivity of the Type IIa Strain of *Trypanosoma cruzi* for Placental Syncytiotrophoblast Cells”. Jennifer Patonay and Chris A. Hall. Annual meeting of the Southeastern Association of Parasitology. April 7-9. Asheville, N. C.
- 2010 “Development of an *in vitro* model for the role of complement activation and body temperature in the innate avian resistance to *Trypanosoma cruzi* infection.” Whitney Bullard, Casey Underhill, Nicole Acuff, and Chris A. Hall. Annual meeting of the Southeastern Association of Parasitology. April 7-9. Asheville, N. C.
- 2009 Efficacy of a TSA-1 encoding DNA vaccine against *Trypanosoma cruzi* in controlling vertical transmission in ICR mice. Whitney Bullard, Sam Posey, Caroline Champion, Nicole Acuff, *Eric Dumonteil, and Chris A. Hall. Annual meeting of the American Society of Parasitologists, Knoxville, TN.
- 2008 “*Trypanosoma cruzi* in the Southeastern United States: A potential model for the evolution of a human pathogen.” Invited Speaker, November 11th. Middle Tennessee State University, Murfreesboro, TN.
- 2008 “Vertical Transmission of Type I and Type IIa Strains of *Trypanosoma cruzi* from the Southeastern United States in BALB/c Mice.” Emily Pierce, Katie Edenfield, Sam Posey, and Chris Hall. Annual meeting of the Southeastern Association of Parasitology. Spartanburg, S. C.
- 2008 A species diverse survey of southeastern Georgia for the sylvatic distribution of *Trypanosoma cruzi*. Caroline Champio¹, Katie Edenfield Carol Ruckdeschel, and Chris Hall. Annual meeting of the Southeastern Association of Parasitology. Spartanburg, S. C.
- 2008 “Prevalence of *Trypanosoma cruzi* in Triatomine Vectors From Domestic and Peri-Domestic Sites in the Southeastern United States. Christopher A. Hall, Paula L. Marcet, Gena G. Lawrence, and Ellen M. Dotson. International Conference on Emerging Infectious Disease. Atlanta, GA, March 16th-19th.

Journals and Agencies Reviewed For:

- PLOS One
- Parasitology Research
- American Association of Tropical Medicine and Hygiene
- Parasite Immunology
- Journal of Immunology
- Journal of Zoo and Wildlife Medicine
- Southeastern Naturalist

- Journal of Parasitology
- Journal of Molecular Nutrition and Food Research
- Journal of Diagnostic Microbiology and Infectious Disease
- National Science Foundation (Grant Reviewer)

Funding History:

- 9/2015 Faculty development Grant. “Naphthalene based compounds in *T. cruzi* chemotherapy.” Funded \$1721.00
- 3/2014 Faculty development Grant. “*Triatoma sanguisuga* colony population dynamics as a function of climatic variations. Funded \$1600.
- 3/2012 Faculty Development Grant. “The prevalence and strain specificity of *Trypanosoma cruzi* in *Triatoma sanguisuga* specimens collected throughout the southeastern United States.” Funded \$1156.00.
- 3/ 2011 Faculty development Grant. “Cytokine responses in a placental model for *Trypanosoma cruzi* invasion.” Funded \$2918.00
- 1/2010 Faculty Development Grant. “Efficacy of a therapeutic DNA vaccine against *Trypanosoma cruzi* in blocking congenital transmission.” Funded \$2000.
- 1/2009 Faculty Development Grant. “Distribution and infection status of *Trypanosoma cruzi* vectors in the southeastern United States.” Funded \$1010.00
- 7/2008 -Faculty Development Grant. “Mechanism of Avian hemolytic resistance to *Trypanosoma cruzi*.” Funded \$1990.00
- 7/2007 - Faculty Development Grant. Requested funding for the development and maintenance of an insectivory for the study of the *T. cruzi* vector *Triatoma sanguisuga*. Funded \$831.25.
- 12/2006 - Development of Undergraduate Research (DUR) Grant. Establishing the presence and strain type of *Trypanosoma cruzi* on Cumberland Island, Georgia. Funded \$1000
- 12/2006 - Development of Undergraduate Research Grant. “Variations in *T. cruzi* Strain-Specific Parasitemias in Infected Reduviid Vectors.” Funded \$598.00
- 5/2006 - Faculty Development Grant. Vertical transmission of North American Type I vs. Type II strains of *Trypanosoma cruzi* in BALB/c mice. Funded \$994.56
- 3/2006 – Faculty Development Grant. Integrative Healthcare in China workshop \$740.00.
- 2/2006 – Freeman Foundation, School for International Training. Faculty Study Abroad Program. “Integrative Healthcare in China”. Funded \$4600.
- 2/2006 – National Institutes of Health R-15 Research Grant. Co-investigator a proposal entitled “Molecular and biological characterization of *T. cruzi* from the US.” submitted by collaborator Dr. Michael Yabsley. Funded \$150,000

2/2006 – Development of Undergraduate Research Grant. Factors associated with the reproductive success of *Triatoma sanguisuga*. \$471.00. Fully Funded.

1/2006 - Faculty Development Grant. Comparison of two different *T. cruzi* strains for susceptibility to chicken serum complement. \$1265.44. Fully funded.

6/2005 – Granted a summer research stipend by Berry College to manage two summer research interns being supported by a departmental NSF-CUR grant. \$2000.

1/2005 – Collaborator on a National Institutes of Health (R15) grant proposal entitled “Molecular and Biological Characterization of *Trypanosoma cruzi* from the United States.” Submitted by Dr. Michael Yabsley, SE Cooperative Wildlife Disease Study. Athens, GA. \$150,000. Funding declined. Resubmission in Oct. 2005.

1/2005 - Faculty Development Grant. Funding for the continued study of the epidemiology of *Trypanosoma cruzi* in the southeast United States. \$1172.00 Fully Funded.

7/2004 – Collaborator. National Science Foundation Research Experiences for Undergraduates Sites Grant. REU Site: An Integrative Faculty/Student Research Program in Biology at Berry College. Funded. \$166,244 (Co-PIs Patricia Tomlinson and Martin Cipollini).

11/2004 – Development of Undergraduate Research (DUR) Grant Proposal: Development of an in-house PCR assay for *Trypanosoma cruzi*. \$600 Fully funded.

7/2004 – NSF CAREER Grant Proposal: “Analysis of ecological and biological interactions associated with the sylvatic cycle of *T. cruzi* in Georgia: A model for vector-borne zoonotic disease transmission.” \$635,000. Denied Funding.

7/2004 – Co-PI on NSF-RUI Grant Proposal: “Development of bioacoustics for coyote population estimation and raging behavior.” \$302,589. Denied Funding.

1/2004 – Faculty Development Grant: For the continued biological characterization of the regional isolate of *T. cruzi*. Fully funded \$2000

1/2003 - Faculty Development Grant: Proposal to compare two disparate *T. cruzi* strains in regards to their ability to protect mice against infection with the virulent Brazilian strain. Fully funded. \$2,000.

12/2002 - Travel Grant: Funding to travel to Ecuador for development of a Study Abroad course in Tropical Disease Research. Funded: \$3,000.

12/2002 – Development of Undergraduate Research (DUR) Grant: Proposal to investigate the infection profiles of the Corpus Christie strain of *T. cruzi*. Funded: \$680.

7/2002 –FDG Proposal to investigate the distribution and prevalence of *T. cruzi* in the arthropod vector species, *T. sanguisuga*, along the Georgia barrier island complex. Funded: \$2,000.

7/2002 -CAREER Grant: NSF Proposal to conduct a 5-year study of the epidemiology and immunology of *T. cruzi* along the barrier island complex of Georgia. Declined. To be resubmitted in Summer 2003. \$603,000.

1/2002 – DUR: Survey of cryptosporidium among a cohort of calves on the Berry College campus. Funded: \$660.

9/2001 – FDG: Proposal for the establishment of a histological processing and tissue cutting facility. Funded: \$1880.

9/2000 – FDG: Proposal to perform a survey of parasites infecting the raccoons inhabiting Berry College livestock facilities. Funded \$2,000.

Other Research Experience:

- 1993-1999 Studied the relevance of skin associated immune effector cells to protection in mice vaccinated against *Schistosoma mansoni*. University of Georgia. Ph.D. Dissertation
- 1991-1993 Established cycle of avian thymic hormone levels in layer and broiler chickens in circadian and developmental studies. University of Georgia. Masters Thesis.
- 1988-1991 Development of hybridomas and an Enzyme-Linked Immunosorbent Assay for Avian Thymic Hormone (ATH). University of Georgia.
- 1986 Consultant for the commercial development of immuno-based pregnancy tests for exotic animals. Rocky Mountain Laboratories, Fort Collins, Colorado.
- 1984-1988 Development of extraction and purification protocols for circulating plasma hormones for use in superovulation. Synkron Corp., Fort Collins, Colorado.

Professional Affiliations:

Southeastern Center for Emerging Biological Threats
 National Disaster Medical Services (NDMS) 6/2002-present
 American Society of Tropical Medicine and Hygiene 2000-2010
 American Society of Parasitology (ASP) 2000-present
 American Committee on Arthropod-borne Viruses (ACAV)
 American Committee on Molecular, Cellular and Immunoparasitology (ACMCIP)
 Southeastern Society of Parasitologists (SSP) 1994-present
 Society of Laboratory Animal Researchers and Technicians 2000-2002
 Association of Biology Laboratory Education (ABLE) 1998-99
 National Association for Research in Science Teaching (NARST) 1998-99
 Board of Directors, Cumberland Island Museum of Natural History
 Sigma Xi Scientific Honor Society 2004-present
 Certified Medical Phlebotomist

Other Work Experience:

- 1989-1990 Research Technician: Immunology Lab. University of Georgia, College of Veterinary Medicine. University of Georgia.
Generated hybridomas for monoclonal production, designing and standardizing immunoassays, immuno-histological staining, establishing avian thymic hormone cycles in layer and broiler chickens, publishing original manuscripts on our work, and managing lab technicians.
- 1984-1988 Director of Research: Synkron Corporation, Fort Collins, Colorado
Managed 5 technicians at two facilities focused on the commercial extraction and purification of reproductive hormones for use in super-ovulation and livestock reproductive management. Worked closely with faculty at Colorado State University to develop novel serological assays (ELISA and HA) and radioimmunoassays (RIA) for endocrine hormones. Gel-chromatography, radioimmunoassays, ELISA, and phlebotomy techniques were commonly utilized. Maintained quality control record and, represented the company in dealings with the FDA and USDA. Ensured compliance to federal regulations and GMP guidelines.

Hobbies: Sailing, kayaking (sea and white water), backpacking, photography.