Germán Rosas-Acosta, M.Sc., Ph.D.

Assistant Professor - Department of Biological Sciences
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Education

Jan. 1996 – May 1998	**Doctoral degree in Biomedical Sciences**. Sackler Institute of Biomedical Sciences, Graduate School of Arts and Science, New York University, New York, NY.
Jan. 1994 – Dec. 1995	**Master of Science in Biomedical Sciences**. Sackler Institute of Biomedical Sciences, Graduate School of Arts and Science, New York University, New York, NY.
Feb. 1985 – Dec. 1988	**Bachelor of Science. Major: Microbiology**. Department of Microbiology, Universidad de los Andes, Bogotá, D.C., Colombia.

Positions Held

Jan. 2007 – Present	**Assistant Professor**, Dept. of Biological Sciences, The University of Texas at El Paso (UTEP), El Paso, TX.
Jul. 2005 – Dec. 2006	**Assistant Professor – Research**, Dept. of Microbial and Molecular Pathogenesis (former Dept. of Medical Microbiology and Immunology), Texas A&M University System Health Science Center, College Station, TX.
Apr. 2002 – Jun. 2005	**Postdoctoral Research Associate**, Dept. of Medical Microbiology and Immunology, Texas A&M University System Health Science Center, College Station, TX.
Jun. 2000 – Mar. 2002	**Assistant Research Scientist**, Dept. of Entomology, Texas A&M University, College Station, TX.
Jun. 1998 – May 2000	**Postdoctoral Research Associate**, Dept. of Entomology, Texas A&M University, College Station, TX.
Jan. 1994 – May 1998	**Graduate Student**, Sackler Institute of Biomedical Sciences, Graduate School of Arts and Science, New York University, New York, NY.
Mar. 1992 – Dec. 1993	**Research Assistant**, Department of Medical and Molecular Parasitology, New York University Medical Center, New York, NY.
Feb. 1989 – Feb. 1992	**Research Assistant and Staff Member**, Instituto de Inmunologia - Hospital San Juan de Dios, Bogotá, D.C., Colombia.

Teaching Experience

Aug. 2012 - Dec. 2012	**BIOL3314 – Molecular Cell Biology**: Directed the course and lectured 3 hours per week, for 16 weeks (Fall Semester, 2012). The University of Texas at El Paso, El Paso, TX. **BIOL3114 – Molecular Cell Biology Laboratory**: Directed the course, which involved 5 different sections, each of which met for 3 hours per week, for 16 weeks (Fall Semester, 2012). The University of Texas at El Paso, El Paso, TX. **BIOL1107 – Phage Hunters' Laboratory ("wet" lab):** Co-directed the third year of the Phage Hunters' Laboratory course, sponsored by the Howard Hughes Medical Institute (Fall Semester, 2011). The University of Texas at El Paso, El Paso, TX.
Jan. 2012 – May 2012	**BIOL3414 – Molecular Cell Biology**: Directed the course and lectured 3 hours per week, for 16 weeks (Spring Semester, 2012). The University of Texas at El Paso, El Paso, TX. **MICR2440 – Phage Hunters' Laboratory ("dry" lab):** Co-directed the second part of the Phage Hunters' Laboratory course, given as a lab section for students taking General Microbiology (Spring Semester, 2012). This component of the course involved the annotation of the genomic sequence of one of the bacteriophages isolated during the first

part of the course. This course was sponsored by the Howard Hughes Medical Institute. The University of Texas at El Paso, El Paso, TX.

BIOL5340 – Structure and Function of Macromolecules: Lectured two one hour sessions to graduate students. The University of Texas at El Paso, El Paso, TX.

CBCH4320 – Advanced Topics in Molecular Biochemistry: Lectured two one hour sessions to undergraduate students. The University of Texas at El Paso, El Paso, TX.

Aug. 2011 – Dec. 2011 **BIOL5301 – Advanced Molecular Biology:** Directed the course and lectured 4.0 hours per week, for 15 weeks (Fall Semester, 2011). The University of Texas at El Paso, El Paso, TX.

BIOL1107 – Phage Hunters' Laboratory ("wet" lab): Co-directed the second year of the Phage Hunters' Laboratory course, sponsored by the Howard Hughes Medical Institute (Fall Semester, 2011). The University of Texas at El Paso, El Paso, TX.

CBCH4310 - Techniques in Molecular Biochemistry: Lectured three one hour sessions to undergraduates in the Cellular and Molecular Biochemistry program. The University of Texas at El Paso, El Paso, TX.

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Jan. 2011 – May 2011 **BIOL3414 – Molecular Cell Biology**: Directed the course and lectured 3 hours per week, for 16 weeks (Spring Semester, 2011). The University of Texas at El Paso, El Paso, TX.

MICR2440 – Phage Hunters' Laboratory ("dry" lab): Co-directed the second part of the Phage Hunters' Laboratory course, given as a lab section for students taking General Microbiology (Spring Semester, 2011). This component of the course involved the annotation of the genomic sequence of one of the bacteriophages isolated during the first part of the course. This course was sponsored by the Howard Hughes Medical Institute. The University of Texas at El Paso, El Paso, TX.

BIOL5340 – Structure and Function of Macromolecules: Lecture two one hour sessions to graduate students. The University of Texas at El Paso, El Paso, TX.

Aug. 2010 – Dec. 2010 **BIOL5301 – Advanced Molecular Biology:** Directed the course and lectured 4.5 hours per week, for 16 weeks (Fall Semester, 2010). The University of Texas at El Paso, El Paso, TX.

BIOL1107 – Phage Hunters' Laboratory ("wet" lab): Co-directed the Phage Hunters' Laboratory course, a laboratory course for students taking General Biology (Fall Semester, 2010). This course involved the isolation and characterization of Mycobacteriophages from environmental samples, and was sponsored by the Howard Hughes Medical Institute. The University of Texas at El Paso, El Paso, TX.

Jan. 2010 – May 2010 **BIOL3414 – Molecular Cell Biology**: Directed the course and lectured 3 hours per week, for 16 weeks (Spring Semester, 2010). The University of Texas at El Paso, El Paso, TX.

Aug. 2009 – Dec. 2009 **BIOL5301 – Advanced Molecular Biology**: Directed the course and lectured 4.5 hours per week, for 16 weeks (Fall Semester, 2009). The University of Texas at El Paso, El Paso, TX.

Jan. 2009 – May 2009 **BIOL3414 – Molecular Cell Biology**: Directed the course and lectured 3 hours per week, for 16 weeks (Spring Semester, 2009). The University of Texas at El Paso, El Paso, TX.

Aug. 2008 – Dec. 2008 **BIOL5301 – Advanced Molecular Biology**: Directed the course and lectured 4.5 hours per week, for 16 weeks (Fall Semester, 2008). The University of Texas at El Paso, El Paso, TX.

Jan. 2008 – May 2008 **BIOL3414 – Molecular Cell Biology**: Directed the course and lectured 3 hours per week, for 16 weeks (Spring Semester, 2008). The University of Texas at El Paso, El Paso, TX.

Aug. 2007 – Dec. 2007 **BIOL3414 – Molecular Cell Biology**: Directed the course and lectured 3 hours per week, for 16 weeks (Fall Semester, 2007). The University of Texas at El Paso, El Paso, TX.

Jan. 2007 – May 2007 **BIOL3414 – Molecular Cell Biology**: Directed the course and lectured 3 hours per week, for 16 weeks (Spring Semester, 2007). This course is given to Junior Students in all Biological Science majors. The University of Texas at El Paso, El Paso, TX.

Aug. 2006 – Dec. 2006 **MMIM 923 – Medical Microbiology**: Lectured and directed the Parasitology module (six one hour lectures plus one two hour review session) for 2nd year medical students. School of Medicine, Texas A&M University System Health Science Center, College Station, TX.

Aug. 2005 – Dec. 2005 **MMIM 923 – Medical Microbiology**: Lectured and directed the Parasitology module (six one hour lectures plus one two hour review session) for 2nd year medical students. School of Medicine, Texas A&M University System Health Science Center, College Station, TX
MSCI 687 – Professionalism and Ethics: Lectured one class for 1st year graduate students. Graduate School of Biomedical Sciences, Texas A&M University System Health Science Center, College Station, TX.

Aug. 2004 – Dec. 2004 **MMIM 923 – Medical Microbiology**: Directed the Parasitology module and lectured half of the classes (three one hour lectures) for 2nd year medical students. School of Medicine, Texas A&M University System Health Science Center, College Station, TX.

Aug. 2003 – Dec. 2003 **VTPB689 - Fundamentals of Pathology**: Lectured one class in the Virology section for graduate students. College of Veterinary Medicine, Texas A&M University, College Station, TX.

Jul. 1990 – Dec. 1991 **General Immunology**: Lectured two classes per term for 2nd year medical students. School of Medicine & Surgery, Universidad del Rosario, Bogotá, D.C., Colombia.

Jul. 1987 – Dec. 1987 **Bacteriology I**: Laboratory Teaching Assistant for 2nd year undergraduate students. Department of Microbiology, Universidad de los Andes, Bogotá, D.C., Colombia.

June 1998 – Present **Undergraduate, Master, and Doctoral Student Trainees**: Shawn Williamson, Carolina Pinzón, Martijn A. Langereis, Klaas Mulder, Serena Verbon, Lorena Conde, Veronica Calderon, Edgar Anaya, Diana Serrano, Sangita Pal, Andres Santos, Jason Meyer.

Invited Lectures

1. "Artificial SUMO Ligases - An innovative tool to study the effects of SUMOylation on specific targets." The Sixth International Conference on SUMO, Ubiquitin, and UBL Proteins: Implications for Human Diseases. The University of Texas – MD Anderson Cancer Center. February 8-11, 2012.

2. “Wrestling with the flu: Interactions between the cellular SUMOylation system and influenza virus.” Distinguished Lecture Series - Texas Tech University Health Sciences Center - Paul L. Foster School of Medicine, El Paso, TX. December 7, 2011.

3. “Wrestling with the flu: Interactions between the cellular SUMOylation system and influenza virus.” South Texas Center for Emerging Infectious Diseases, The University of Texas at San Antonio, San Antonio, TX. September 2, 2011.

4. “Wrestling influenza infections: Interactions between the cellular SUMOylation system and influenza virus.” Department of Biology, New Mexico State University, Las Cruces, NM. April 8, 2010.

5. “SUMO, nucleocytoplasmic traffic, and viral infections." Department of Biology, University of Texas El Paso, El Paso, TX. May 9, 2006.

6. “SUMO, nucleocytoplasmic traffic, and viral infections." Department of Microbial and Molecular Pathogenesis, College Station, TX. April 24, 2006.

7. "The mammalian sumoylation system and the nucleocytoplasmic traffic of viral and mammalian proteins." Videoconference - Universidad Nacional de Colombia, Bogotá, D.C., Colombia; College Station, TX. February 23, 2006.

8. "Connections between the mammalian sumoylation system and the nucleocytoplasmic traffic of viral and mammalian proteins." CorpoGen, Bogotá, D.C., Colombia, July 1, 2005.

9. "The mammalian sumoylation system and its connections with the nucleocytoplasmic traffic of viral and mammalian proteins." Center For Extracellular Matrix Biology, Texas A&M Institute of Biosciences & Technology, Houston, TX. April 20, 2005.

10. "Red Blood Cell Invasion by *Plasmodium vivax* Merozoites: The Reticulocyte Binding Proteins." Department of Entomology, Texas A&M University, College Station, TX. October 27, 1997.

Publications

1. Phillip Heaton, Andres Santos, Germán Rosas-Acosta, and Van G. Wilson (2012). *Analysis of global SUMOylation changes occurring during keratinocyte differentiation.* **PLosS One**, 7(1): e30165.

2. Jinyi Liu, Dongyun Zhang, Wenjing Luo, Yonghui Yu, Jianxiu Yu, Jingxia Li, Xinhai Zhang, Baolin Zhang, Jingyuan Chen, Xue-Ru Wu, Germán Rosas-Acosta, and Chuanshu Huang (2011). *The X-linked inhibitor of apoptosis protein (XIAP) mediates cancer cell motility via RhoGDP dissociation inhibitor (RhoGDI)-dependent regulation of cytoskeleton.* **Journal of Biological Chemistry,** 286(18): 15630-15640.

3. Sangita Pal, Andres Santos, Juan M. Rosas, Joshua Ortiz-Guzman, and Germán Rosas-Acosta (2011). *Influenza A virus interacts extensively with the cellular SUMOylation system during infection.* **Virus Research**, 158:12-27.

4. Murilo T.D. Bueno, Jose A. Garcia, Elisa Morales, Jeffrey R. Kugelman, Germán Rosas-Acosta, and Manuel Llano (2010). *SUMOylation of lens epithelium-derived growth factor/p75 impairs its transcriptional activity on the heat shock protein 27 promoter*. **Journal of Molecular Biology**, 399(2): 221-39.

5. Sangita Pal, Juan M. Rosas, and Germán Rosas-Acosta (2010). *Identification of the non-structural influenza A viral protein NS1A as a* bona fide *target of the Small Ubiquitin-like MOdifier by the use of dicistronic expression constructs.* **Journal of Virological Methods**, 163(2): 498-504.

6. Angela Nanos-Webb, Adeline Deyrieux, Xue-Lin Bian, Germán Rosas-Acosta, and Van G. Wilson (2009). *Cloning the human SUMO1 promoter*. **Molecular Biology Reports**, 37(3): 1155-63.

7. Christian Schmidt , Dongkyoon Kim , Gregory Ippolito , Hassan Naqvi , Loren Probst , Shawn Mathur , Germán Rosas-Acosta, Van Wilson , Athenia Oldham , Martin Poenie , Carol Webb, and Philip Tucker (2009). *Signaling of the BCR is regulated by a lipid rafts-localized transcription factor, Bright*. **The EMBO Journal**, 28(6): 711-24.

8. Germán Rosas-Acosta and Van G. Wilson (2008). *Identification of a nuclear export signal sequence for bovine papillomavirus E1 protein*. **Virology**, 373(1): 149-62.

9. Martijn Langereis‡, Germán Rosas-Acosta‡, Klass Mulder, and Van G. Wilson (2007). *Production of sumoylated proteins using a baculovirus expression system*. **Journal of Virological Methods**, 139(2): 189-94.
‡These authors contributed equally to this work.

10. Xue-Lin Bian, Germán Rosas-Acosta, Wu Y.C., and Van G. Wilson (2007). *Nuclear import of BPV1 E1 protein is mediated by multiple alpha importins and is negatively regulated by phosphorylation near a nuclear localization signal*. **Journal of Virology**, 81(6): 2899-908.

11. Adeline Deyrieux, Germán Rosas-Acosta, Michelle A. Ozbun, and Van G. Wilson (2007). *Sumoylation dynamics during keratinocyte differentiation.* **Journal of Cell Science**, 120(1): 125-36.

12. Okenu D.M.N., Meyer E. V-S., Puckett T.C., Rosas-Acosta G., Barnwell J.W., Galinski M.R. (2005). *The Reticulocyte Binding Proteins of* Plasmodium cynomolgi*: a model system for studies of* P. vivax*.* **Molecular and Biochemical Parasitology**, 143(1):116-20.

13. Van G. Wilson and Germán Rosas-Acosta (2005). *Wrestling with SUMO in a new arena*. **Science STKE** 2005, 290: pe 32.

14. Germán Rosas-Acosta, William K. Russell, Adeline Deyrieux, David H. Russell, and Van G. Wilson (2005). *A universal strategy for proteomic studies of SUMO and other ubiquitin-like modifiers*. **Molecular and Cellular Proteomics**, 4: 56-72.

15. Germán Rosas-Acosta, Martijn A. Langereis, Adeline Deyrieux, and Van G. Wilson (2005). *Proteins of the PIAS family enhance the sumoylation of the papillomavirus E1 protein*. **Virology**, 331(1): 190-203.

16. Germán Rosas-Acosta and Van G. Wilson (2004). *Viruses and Sumoylation*. In "**Sumoylation: Molecular Biology and Biochemistry**". Horizon Bioscience. Norfolk, UK.

17. Van G. Wilson and Germán Rosas-Acosta (2003). *Molecular targets for papillomavirus therapy*. **Current Drug Targets – Infectious Disorders**. 3: 221-39.

18. Sharon C. Braunagel, William K. Russell, Germán Rosas-Acosta, David H. Russell, and Max D. Summers (2003). *Determination of the protein composition of the occlusion-derived virus of* Autographa californica *nucleopolyhedrovirus*. **Proceedings of the National Academy of Sciences, USA**, 100(17): 9797-9802.

19. Sharon C. Braunagel, Paula A. Guidry, Germán Rosas-Acosta, Luke Engelking, and Max D. Summers (2001). *Identification of BV/ODV-C42, an* Autographa californica *nucleopolyhedrovirus orf 101-encoded structural protein detected in infected-cell complexes with ODV-Ec27 and p78/83*. **Journal of Virology**, 75 (24): 12331-12338.

20. Germán Rosas-Acosta, Sharon C. Braunagel and Max D. Summers (2001). *Effects of Deletion and Overexpression of the* Autographa californica *nuclear polyhedrosis virus FP25K gene on synthesis of two occlusion-derived virus envelope proteins and their transport into virus-induced intranuclear membranes*. **Journal of Virology**, 75 (22): 10829-10842.

21. Sharon C. Braunagel, Jared K. Burks, Germán Rosas-Acosta, Robert L. Harrison, H. Ma, and Max D. Summers (1999). *Mutations within the* Autographa californica *nucleopolyhedrovirus FP25K Gene Decrease the Accumulation of ODV-E66 and Alter Its Intranuclear Transport*. **Journal of Virology**, 73 (10): 8559-8570.

Manuscripts Currently in Review:

- Andres Santos , Sangita Pal , Jason Chacon, Katherine Meraz, Jeanette Gonzalez, Karla Prieto, and Germán Rosas-Acosta. *SUMOylation affects the interferon blocking activity of the influenza A non-structural protein NS1 without affecting its stability or cellular localization*. **Journal of Virology** (submitted on 7 August 2012).

- Andres Santos, Jason Chacon, and Germán Rosas-Acosta. Chapter "*Influenza virus multiplication and the cellular SUMOylation system"*. Book **"Viral Replication"**, Edited by Dr. Iain MacLeod and published by Intech (submitted on 3 April 2012).

Munuscripts in Preparation

- Sangita Pal, Jeanette Gonzalez, Jason Chacon, Katherine Meraz, Karla Prieto, and Rosas-Acosta, G. *Development of an Artificial SUMO Ligase (ASL) specific to the non-structural influenza A protein NS1A and its use to study the in vivo effects mediated by SUMOylation*. **PLoS One** (manuscript in preparation).

- Jason Chacon, Andres Santos, Katherine Meraz, and Rosas-Acosta, G. *The non-structural protein NS1 is the protein responsible for the global increase in cellular SUMOylation observed during influenza A virus infections.* **Journal of Virology** (manuscript in preparation).

Meeting Presentations & Abstracts

1. Germán Rosas-Acosta, Jason Chacon, Katie Meraz, Sangita Pal, Jeanette Gonzalez, and Karla Prieto. "SUMOylation modulates NS1A's IFN antagonistic activity without altering its stability or cellular localization." 31st Annual Meeting of the of the American Society for Virology, The University of Wisconsin, Madison, Madison, WI. July 21-25, 2012.

2. Andres Santos and Germán Rosas-Acosta. "Characterization of the effects of SUMOylation on the influenza A viral polymerase basic 1 protein (PB1)." 31st Annual Meeting of the of the American Society for Virology, The University of Wisconsin, Madison, Madison, WI. July 21-25, 2012.

3. Jason Chacon, Andres Santos, Iris A. Thomas, Griselda Melendez, Alejandra Navarro, Germán Rosas-Acosta. "Origins and consequences of the global increase in cellular SUMOylation occurring during influenza A viral infection." 31st Annual Meeting of the of the American Society for Virology, The University of Wisconsin, Madison, Madison, WI. July 21-25, 2012.

4. Katie Meraz, Andres Santos, Jeanette Gonzalez, and Germán Rosas-Acosta. "Insights on the role of SUMOylation during influenza A viral infection." 31st Annual Meeting of the of the American Society for Virology, The University of Wisconsin, Madison, Madison, WI. July 21-25, 2012.

5. Lorellie Lewis and Germán Rosas-Acosta. "SUMO Interacting Motifs (SIMs) in the non-structural protein of influenza A virus NS1A." Summer COURI Symposium, The University of Texas at El Paso, El Paso, TX. July 27, 2012.

6. Andres Santos, Jason Chacon, Iris Tomas, and Germán Rosas-Acosta. *"Source and targets of the global increase in cellular SUMOylation during Influenza A virus infection."* 2012 Annual Meeting of the Rio Grande Branch of the American Society for Microbiology. New Mexico State University, Las Cruces, NM. February 24-25, 2012.

7. Carilinda Serna, Andres Santos, Germán Rosas-Acosta, and Rosa A. Maldonado. *"SUMOylation of Trypanosoma cruzi's Mucin-Associated Surface Protein (MASPves)."* 2012 Annual Meeting of the Rio Grande Branch of the American Society for Microbiology. New Mexico State University, Las Cruces, NM. February 24-25, 2012.

8. Jason Chacon, Sangita Pal, Katie Meraz, Jeanette Gonzalez, Andres Santos, Karla Prieto, and Germán Rosas-Acosta. *"Artificial SUMO Ligases - An innovative tool to study the effects of SUMOylation on specific targets."* 2012 Annual Meeting of the Rio Grande Branch of the American Society for Microbiology. New Mexico State University, Las Cruces, NM. February 24-25, 2012.

9. Jason Chacon, Sangita Pal, Katie Meraz, Jeanette Gonzalez, Andres Santos, Karla Prieto, and Germán Rosas-Acosta. *"Artificial SUMO Ligases - An innovative tool to study the effects of SUMOylation on specific targets."* The Sixth International Conference on SUMO, Ubiquitin, and UBL Proteins: Implications for Human Diseases. The University of Texas – MD Anderson Cancer Center. February 8-11, 2012.

10. Andres Santos, Jason Chacon, Iris Tomas, and Germán Rosas-Acosta. *"Source and targets of the global increase in cellular SUMOylation during Influenza A virus infection."* The Sixth International Conference on SUMO, Ubiquitin, and UBL Proteins: Implications for Human Diseases. The University of Texas – MD Anderson Cancer Center. February 8-11, 2012.

11. Andres Santos, Sangita Pal, Joshua Ortiz, and Germán Rosas-Acosta. *"Influenza A upregulates the cellular SUMOylation system during viral infection."* 30th Annual Meeting of the American Society for Virology. The University of Minnesota, Twin Cities, Minneapolis Campus, July 16-20, 2011.

12. Sangita Pal, Andres Santos, Jason Chacon, Joshua Ortiz, Karla Prieto, Juan M. Rosas, and Germán Rosas-Acosta. *"Influenza virus affects and is affected by the cellular SUMOylation system."* Cell Symposia: Influenza – Translating basic insights. Cell Magazine and Cell Host and Microbe Magazine. Washington Marriot Hotel, Washington D.C. December 2-4, 2010.

13. Joshua Ortiz, Andres Santos, Jason Chacon, Karla Prieto, and Germán Rosas-Acosta. *"The cellular SUMOylation system and its effects on viral replication during influenza infection."* 2010 Annual Biomedical Research Conference for Minority Students (ABRCMS). American Society for Microbiology. Charlotte Convention Center, Charlotte, NC. November 10-13, 2010.

14. Andres Santos and Germán Rosas-Acosta. *"The interplay between a constitutively active endogenous post-translational modification system known as SUMOylation and influenza virus infection."* 2010 Annual Meeting of the Society for Advancement of Chicanos and Native Americans in Science. Anaheim Convention Center, Anaheim, CA. September 29-October 3, 2010.

15. Karla Prieto, Sangita Pal, and Germán Rosas-Acosta. *"Developing SUMO tools against influenza infections."* UT System LSAMP Conference. National Science Foundation. The University of Texas at El Paso (UTEP), El Paso, TX. September 17-18, 2010.

16. Sangita Pal and Germán Rosas-Acosta. *"The influenza A virus NS1A and NS2 (NEP) proteins are modified by the cellular SUMOylation machinery."* 2010 Annual Meeting of the Rio Grande Branch of the American Society for Microbiology. The University of Texas at El Paso, El Paso, TX. February 26-27, 2010.

17. Andres Santos and Germán Rosas-Acosta. *"Influenza's manipulation of the host SUMOylation system for infectious advantage."* 2010 Annual Meeting of the Rio Grande Branch of the American Society for Microbiology. The University of Texas at El Paso, El Paso, TX. February 26-27, 2010.

18. Carilinda Serna, Andres Santos, Germán Rosas-Acosta, Rosa A. Maldonado. *"SUMOylation of Mucin-Associated Surface Protein from Trypanosoma cruzi."* 2010 Annual Meeting of the Rio Grande Branch of the American Society for Microbiology. The University of Texas at El Paso, El Paso, TX. February 26-27, 2010.

19. Germán Rosas-Acosta, Sangita Pal, Andres Santos, Jason Meyer, Juan M. Rosas, Karla Prieto, Joshua Ortiz, Veronica Calderon. *"The cellular SUMOylation ystem as a key determinant of cell survival and viral replication during influenza infection."* The Fifth International Conference on SUMO, Ubiquitin, and UBL Proteins: Implications for Human Diseases. The University of Texas – MD Anderson Cancer Center. Houston, TX. February 10-13, 2010.

20. Sangita Pal, Karla Prieto, and Germán Rosas-Acosta. *"SUMOylation of the influenza A virus multifunctional non-structural NS1A protein."* The Fifth International Conference on SUMO, Ubiquitin, and UBL Proteins: Implications for Human Diseases. The University of Texas – MD Anderson Cancer Center. Houston, TX. February 10-13, 2010.

21. Germán Rosas-Acosta, Juan M. Rosas, Veronica Calderon, Sangita Pal, Andrés Santos, Jackie Mariscal. *"The celular sumoylation system as a target for novel anti-influenza A virus therapies."* 28th Annual Meeting of the American Society for Virology. The University of British Columbia, Vancouver, Canada. July 11-15, 2009.

22. Sangita Pal, Juan M. Rosas, Veronica Calderon, Cinthia Gallegos, and Germán Rosas-Acosta. *"The influenza A non-structural protein 1 (NS1A) is modified by the cellular sumoylation system."* 28th Annual Meeting of the American Society for Virology. The University of British Columbia, Vancouver, Canada. July 11-15, 2009.

23. Juan M. Rosas, Sangita Pal, Veronica Calderon, Andrés Santos, Jackie Mariscal, and Germán Rosas-Acosta. *"The cellular sumoylation system as a target for novel anti-influenza virus therapies."* Annual Meeting of the Rio Grande Branch of the American Society for Microbiology. New Mexico State University, Las Cruces, NM. February 27-28, 2009.

24. Edgar Anaya, Juan M. Rosas, and Germán Rosas-Acosta. *"Mapping the sumoylation site on the Influenza A matrix protein M1."* Annual Biomedical Research Conference for Minority Students. Orlando, FL. November 5-8, 2008.

25. Edgar Anaya, Juan M. Rosas, and Germán Rosas-Acosta. *"Mapping the sumoylation site on the Influenza A matrix protein M1."* Society for Advancement of Chicanos and Native Americans in Science – Annual Meeting. Salt Lake City, UT. October 10-11, 2008.

26. Murilo Bueno, Jose A. Garcia-Rivera, Elisa Morales, Jeffrey R. Kugelman, Daniel Rodriguez, Janeth Cortez, Germán Rosas-Acosta and Manuel Llano. "*SUMOylation of LEDGF/p75 influences the sub-nuclear localization of HIV-1 integrase."* Third International Conference on Retroviral Integrase. Woods Hole, MA. September 14-19, 2008.

27. Veronica Calderon, Juan Rosas, Germán Rosas-Acosta. "*The cellular sumoylation system as a target for novel anti-influenza virus therapies*." The Fourth International Conference Ubiquitin, Ubiquitin-like Proteins, and Cancer. The University of Texas - MD Anderson Cancer Center. Houston, TX. February 7-9, 2008.

28. Veronica Calderon, Edgar Anaya, Diana Serrano, Juan Rosas, and Germán Rosas-Acosta. "*Effect of Up-regulating Sumoylation on Influenza A Virus Replication*." Annual Biomedical Research Conference for Minority Students (ABRCMS). Austin, TX. November 7-10, 2007.

29. Diana Serrano, Juan Rosas, and Germán Rosas-Acosta. "*In vivo sumoylation of influenza virus proteins*." Annual Biomedical Research Conference for Minority Students (ABRCMS). Austin, TX. November 7-10, 2007.

30. Veronica Calderon, Edgar Anaya, and Germán Rosas-Acosta. "*Effect of Up-regulating Sumoylation on Influenza A Virus Replication*." Society for the Advancement of Chicanos and Native Americans in Society (SACNAS). Kansas City, MO. October 10-13, 2007.

31. Germán Rosas-Acosta and Van G. Wilson. "*Interactions between the cellular sumoylation system and Influenza virus*." Annual Meeting of the Rio Grande Branch of the American Society for Microbiology. The University of Texas at El Paso. El Paso, Texas. January 26-27, 2007.

32. Xue-Lin Bian, Germán Rosas-Acosta, Michelle Ozbun, and Van G. Wilson. "*Nucleocytoplasmic shuttling of the BPV-E1 protein."* 23rd International Papillomavirus Conference. Prague, Czech Republic. September 1-7, 2006.

33. Germán Rosas-Acosta and Van G. Wilson. "*Identification of sequences in the bovine papillomavirus E1 protein that mediate its CRM1-dependent nuclear export."* 25th Annual Meeting of the American Society for Virology. Madison, Wisconsin. July 15-19, 2006.

34. Adeline Deyrieux, Germán Rosas-Acosta and Van G. Wilson. "*Cross talk between the sumoylation system and keratinocyte differentiation in HaCaT cells*." Third International Conference in Ubiquitin, Ubiquitin-like Proteins & Cancer. The University of Texas – MD Anderson Cancer Center. Houston, Texas. February 9-11, 2006.

35. Germán Rosas-Acosta and Van G. Wilson. "*The Bovine Papillomavirus E1 helicase is exported from the nucleus by a CRM-1 dependent Leptomycin B resistant pathway*." 22nd International Papillomavirus Conference. Vancouver, British Columbia, Canada. May 2-6, 2005.

36. Germán Rosas-Acosta, William K. Russell, R. Paul Wilson, David H. Russell, and Van G. Wilson. "*SUMO-proteomic surprises: The small GTPase Ran is sumoylated*." The Ubiquitin Family Meeting, Cold Spring Harbor Laboratory. Cold Spring Harbor, New York, April 27-May 1, 2005.

37. Germán Rosas-Acosta, Martijn Langereis, and Van G. Wilson. "*Development of a Baculovirus encoded sumoylation system*." 23rd Annual Meeting of the American Society for Virology. Montreal, Canada. July 10-14, 2004.

38. William K. Russell, Germán Rosas-Acosta, David H. Russell, and Van G. Wilson. "*Proteomic analysis of SUMO conjugated proteins*." 52nd ASMS Conference on Mass Spectrometry. American Society for Mass Spectrometry. Nashville, Tennessee. May 23-27, 2004.

39. Germán Rosas-Acosta, Martijn Langereis, and Van G. Wilson. "*Regulation and functional effects of the sumoylation of the BPV-E1 protein*. 21st International Papillomavirus Conference." Mexico City, Mexico. February 20-26, 2004.

40. Germán Rosas-Acosta, William K. Russell, Adeline Deyrieux, David H. Russell, and Van G. Wilson. "*Exploring the sumeome: insights on the biology of sumo and sumo conjugation provided by cell lines expressing tap-sumo1/tap-sumo3 and the preliminary assessment of the sumeome*." Second International Conference in Ubiquitin, Ubiquitin-like Proteins & Cancer. The University of Texas – MD Anderson Cancer Center. Houston, Texas. February 5-7, 2004.

41. German Rosas-Acosta and Van G. Wilson. "*PIAS family proteins stimulate sumoylation of papillomavirus E1 protein*." ICGEB DNA Tumor Virus Meeting. Trieste, Italy. July 15-20, 2003.

42. Sharon C. Braunagel, William K. Russell, German Rosas-Acosta, David H. Russell, and Max D. Summers. "*Application of proteomics to determine the protein composition of the occlusion-derived virus of Autographa californica nucleopolyhedrovirus*." 22nd Annual Meeting of the American Society for Virology. Davis, California. July 12-16, 2003.

43. Germán Rosas-Acosta and Van G. Wilson. "*Role of PIAS family proteins in the sumoylation of papillomavirus E1 protein*." The Ubiquitin Family Meeting. Cold Spring Harbor Laboratory. Cold Spring Harbor, New York, April 23-27, 2003.

44. Germán Rosas-Acosta and Van G. Wilson. "*Proteins of the PIAS family enhance the sumoylation of the papillomavirus E1 protein*." The Second Annual McLaughlin Symposium in Infection and Immunity: "EBV and HPV: Oral infection, persistence, and pathogenesis". The University of Texas Medical Branch at Galveston. Galveston, Texas. February 13-16, 2003.

45. Germán Rosas-Acosta and Van G. Wilson. "*Proteins of the PIAS family enhance the sumoylation of the papillomavirus E1 protein*." 2002 Lost Pines Conference. UT M.D. Anderson Science Park. Smithville, Texas. October 25-27, 2002.

46. Sharon C. Braunagel, Paula A. Shawver, Germán Rosas-Acosta, Luke Engleking, and Max D. Summers. "*Identification of BV/ODV-C42: A structural protein of Autographa californica Nuclear Polyhedrovirus (orf 101) which interacts with the viral proteins ODV-EC27, BV/ODV-E33, and p78/83*." 20th Annual Meeting of the American Society for Virology. Madison, Wisconsin. July 21-25, 2001.

47. Germán Rosas-Acosta, Sharon C. Braunagel, and Max D. Summers. "*Synthesis and transport of two ODV proteins in a FP25K deletion mutant*." 19th Annual Meeting of the American Society for Virology. Fort Collins, Colorado. July 8-12, 2000.

48. Sharon C. Braunagel, Germán Rosas-Acosta, and Max D. Summers. "*FP25K Mutations Alter Intranuclear Trafficking of ODV-E66*." XIth International Congress of Virology. Sydney, Australia. August 9-13, 1999.

49. Germán Rosas-Acosta, Mary R. Galinski, and John W. Barnwell. "*Erythrocyte Invasion by Plasmodium vivax Merozoites: The Reticulocyte Binding Proteins*." Molecular Parasitology Meeting, 1997. Marine Biological Laboratory. Woods Hole, Massachusetts. September 24-28, 1997.

50. Germán Rosas-Acosta, Mary R. Galinski, and John W. Barnwell. *"Red Blood Cell Invasion by Plasmodium vivax: The Reticulocyte Binding Proteins*." First Sackler Institute Retreat. Sackler Institute of Biomedical Sciences. New York University Medical Center. Shawnee, Delaware, Philadelphia. November 1-3, 1996.

51. Mary R. Galinski, Basima Al-Khedery, Germán Rosas-Acosta, Mengyao Xu, Paul Ingravallo, Dmitry Feldman, and John W. Barnwell. *"Plasmodium vivax: Merozoite Biology and Parallels in Other Malaria Parasite Species*." Global Meet on Parasitic Diseases. New Delhi, India. March 18-22, 1996.

52. Mary R. Galinski, Germán Rosas-Acosta, and John W. Barnwell. "*The Reticulocyte Binding Proteins and Invasion by Plasmodium vivax."* Molecular Parasitology Meeting, 1994. Marine Biological Laboratory. Woods Hole, Massachusetts. September, 1994.

Ad-hoc Reviewer Service

1. NIH Grant Review Pannels:

   - NIH/NIAID - Special review group - //////. March 2012.

   - NIH/NIAID - Scientific review group ZAI1-LG-M-J (special review group for grant applications responding to RFA-AI-11--004 "Chemical Approaches to Target Validation for Drug Resistant Pathogens"), R01 grant applications. October 2011.

   - NIH/NIGMS - Scientific review group ZGM1-MBRS-7-GC, SCORE SC1, SC2, and SC3 grant applications. July 2008.

2. International Review Pannels:

   - Sir Henry Dale Fellowship - Pathogen Biology and Disease Transmission Grant Review Meeting - Wellcome Trust and the Royal Society. August 2012.

3. Scientific Journals:

   - Virus Research.

   - Journal of Medical Virology.

   - Oncogene.

Honors and Awards

- Postdoctoral travel grant award. 22nd International Papillomavirus Conference. Vancouver, British Columbia, Canada. May 2-6, 2005.

- Postdoctoral travel grant award. The Ubiquitin Family Meeting. Cold Spring Harbor Laboratory. Cold Spring Harbor, New York, April 27-May 1, 2005.

- Postdoctoral travel grant award. The Second Annual McLaughlin Symposium in Infection and Immunity: “EBV and HPV: Oral infection, persistence, and pathogenesis”. The University of Texas Medical Branch at Galveston. Galveston, Texas. February 13-16, 2003.

- Postdoctoral travel grant award. 19th Annual Meeting. American Society for Virology. Colorado State University Forth Collins, Colorado. July 8-12, 2000.

- Invited student speaker for the First Sackler Institute Retreat. First Sackler Institute Retreat. Sackler Institute of Biomedical Sciences. New York University Medical Center. Shawnee, Delaware, PA. November 1-3, 1996.

- Elected Departmental Students' Representative. Department of Medical and Molecular Parasitology. New York University Medical Center. New York, NY. January 1995 - December 1997.

- Selected among all graduates of the Class of '88 for one of the two annual openings for Research Assistant Positions at the Instituto de Inmunologia, Hospital San Juan de Dios. Department of Microbiology. Universidad de los Andes. Bogotá, D.C., Colombia, January 1989.

- Undergraduate Student Teaching Assistantship. Department of Microbiology. Universidad de los Andes. Bogotá, D.C., Colombia. July - December, 1987.

Grant Support

- **Project title:** Molecular effects of SUMOylation on influenza virus infection: SUMO and NS1
  Grant type: Support of Competitive Research (SCORE) Pilot Project Award (SC1)
  Granting Institution: National Institutes of Health/NIAID
  Role: Principal Investigator
  Status: Active
  Supported Period: 9/07/11 – 8/30/15
  Amount: $1'098,975 (direct cost: $231,291/1st year, $175,000/year thereafter; indirect cost: $342,684 total)

- **Project title:** The sumoylation system as a novel target for **anti-influenza therapies**
  Grant type: Support of Competitive Research (SCORE) Pilot Project Award (SC2)
  Granting Institution: National Institutes of Health/NIGMS/NIAID
  Role: Principal Investigator
  Status: Active
  Supported Period: 1/1/08 – 12/31/10
  Amount: $333,000 ($75,000/year, direct cost)

- **Project title:** The sumoylation system as a novel target for **anti-influenza therapies**
  Grant type: Beginning Grant-in-Aid
  Granting Institution: American Heart Association – Texas Affiliate
  Role: Principal Investigator
  Status: Finished
  Supported Period: 7/1/07 – 6/30/09
  Amount: $130,000 ($65,000/year)

- **Project title:** Development of **tagged influenza viruses** by reverse genetics
  Grant type: University Research Institute Grant
  Granting Institution: The University of Texas at El Paso
  Role: Principal Investigator
  Status: Finished
  Supported Period: Nov 2007 – August 2008
  Amount: $4,975

- **Project title:** Role of SUMO and Ran Sumoylation in Nucleocytoplasmic Traffic
  Grant type: Research Development Grant
  Grant program: Research Development & Enhancement Awards Program
  Granting Institution: TAMU System – Health Science Center
  Role: Principal Investigator
  Status: Finished
  Supported Period: 2/15/06 – 2/14/07
  Amount: $15,000

Professional Memberships

- Member - American Association for the Advancement of Science.
- Member - The American Society for Microbiology.
- Full Member - American Society for Virology.

National and Local Press coverage/recognition

- "**NIH Selects UTEP Professor to Fight the Flu**." UTEP University Communications, Friday September 12, 2011. (http://admin.utep.edu/Default.aspx?tabid=70232)

- "**Health: $330,000 grant helps find flu-shot alternative**." El Paso Times, Tuesday July 29, 2008 edition, Borderland section.

- "**Grant Funds Virus Research**." UTEP University Communications, Friday July 25, 2008. Horizons Online News, UTEP News Tips. (http://ia.utep.edu/Default.aspx?tabid=54087)

- "**UTEP receives grant to find better way to prevent flu**." Texas Government Insider, Volume 6, Issue 31, Friday August 1, 2008. (http://www.spartnerships.com/newsletter/tgi%208-1-08/tgi.html)

- Selected for a brief featured story titled: "**Medical Science: New fight against the flu**", by the editors of the "Texas Innovator", a monthly newsletter featuring breakthroughs and new technologies developed in the State of Texas. Texas Comptroller of Public Accounts, Publication #96-401, Winter 2009. (http://www.window.state.tx.us/txinnovator/ti-winter09/inside.html#flu)

International Press coverage/recognition

- Revista PODER360^{o} – COLOMBIA. Saturday July 26, 2008. No.55. Featured among 50 selected Colombian professors in the USA on the cover story "50 Cerebros fugados" by Ana María Lalinde Posada. (http://www.poder360.com/article_detail.php?id_article=524)