

CURRICULUM VITAE

KONSTANTIN G. KOUSOULAS, Ph.D.

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Dr. Konstantin Gus Kousoulas received his BS in Physics from Fairleigh Dickinson University in Teaneck, NJ, and his MS and PhD degrees from Pennsylvania State University in Biophysics and Molecular Cell Biology, respectively. He received postdoctoral training at the University of Chicago working in Dr. Bernard Roizman's laboratory and at the University of California at San Francisco with Dr. Lenore Pereira, where later he was promoted to Research Assistant Professor. He joined Louisiana State University in Baton Rouge, LA in 1988 and became full professor in 1994. He is currently Professor of Virology at the LSU School of Veterinary Medicine with adjunct appointments at the Department of Biological Sciences, College of Basic Sciences, the Department of Microbiology and Immunology at the LSU Health Sciences Center in New Orleans, and the LSU Health Sciences Center's Stanley S. Scott Cancer Center in New Orleans. He is also an affiliate member of the Tulane National Primate Research Center located in Covington, LA. Dr. Kousoulas has been independently funded by NIH with R01 grants since 1990 working on the molecular biology of herpes simplex virus. He is the Principal Investigator of the LSU-Tulane Center for Experimental Infectious Diseases, which is funded by the NIH:NCRR:COBRE mechanism. Dr. Kousoulas is a member of the Steering Committee of the LSU Baton Rouge-led NIH:NCRR: INBRE program and leads the molecular and cellular biology core of the INBRE. Dr. Kousoulas has served on a number of NIH panels including the NCRR Comparative Medicine Panel and other NIH panels and site-visit teams of National Primate Research Centers. He has served as a regular member in the NIH STRB Panel, which reviewed building construction and animal facilities renovations nationally. Dr. Kousoulas is currently the President of the not-for-profit organization National Association of IDeA Principal Investigators representing all NIH EPSCoR/IDeA states (23 states and Puerto Rico). Dr. Kousoulas's research interests are focused on the molecular biology of human herpes viruses, herpes simplex virus type-1 (HSV-1) that causes facial and genital infections and Kaposi's Sarcoma Associated Herpesvirus (KSHV) that causes Kaposi's cancers in humans. He has also worked on the molecular biology of human and animal coronaviruses. Dr. Kousoulas has extensively utilized viral vectors for vaccine development and cancer treatment. He has constructed and patented a herpes simplex virus that can selectively replicate in human breast cancer cells providing a unique way to treat human breast cancer. Other research interests include structure and function of proteins and glycoproteins, nanomedicine, bioinformatics, and the development of new drugs to combat infectious diseases. Teaching expertise and interests are in the areas of molecular and cellular biology, virology, genetics and nanomedicine for professional and graduate students.

EDUCATION:

1975 B.S., Physics, Fairleigh Dickinson University, Teaneck, NJ.
1977 M.S., Biophysics, Pennsylvania State University, University Park, PA.
1981 Ph.D., Molecular & Cellular Biology, Pennsylvania State University, University, Park, PA.

ACADEMIC POSITIONS:

1982-1983 Postdoctoral Fellow of the American Cancer Society. California Dept. of Health, Berkeley, CA.
1983-1986 PHS Postdoctoral Fellow, University of California, San Francisco, CA.
1983-1985 Visiting Postdoctoral Fellow, University of Chicago, Chicago, IL.
1986-1987 Research Assistant Professor, University of California, San Francisco, CA.
1988-1991 Assistant Professor of Virology, Louisiana State University (LSU), School of Veterinary Medicine (SVM).
1991-1994 Associate Professor of Virology, LSU, SVM. Dept. of Microbiol. & Parasitology.
1994-present Professor of Virology & Biotechnology, LSU, SVM. Dept. of Pathobiological Sciences.
2004-2011 The Mary Louise Martin Professor, LSU, SVM.
2002-present Director, Division of Biotechnology & Molecular Medicine (BioMMED), LSU, SVM.
2004-present Director, NIH COBRE Center for Exp. Infectious Disease Research (CEIDR). LSU, Baton Rouge, LA.
2005-present Director, Molecular & Cell Biol. Core IDeA Network for Biomedical Research Excellence (INBRE), LSU, Baton Rouge, LA.

TEACHING: (INCLUDE UNDERGRADUATE, PROFESSIONAL AND GRADUATE CURRICULUM COURSES):

TEACHING HISTORY:

- Biochemistry of Viruses (BCH 7289/VMP 7410). Spring Term 1992, 1994, 1995; 1997, 1998, Fall Term 1999, 2001, 2003; 15-25 students per class (Jointly taught with Dr. D. Shih).
- Undergraduate Virology (BIOL4190). Spring Term 2000-2006.
- Veterinary Virology (VMED 5230). Spring Terms 1994-2011; 70-80 veterinary students (Selected lectures).
- Molecular Mechanisms of Viral Pathogenesis (VMP 7411; PBS 7411). Spring Term 1996-2008, 10-15 graduate students per class (Selected lectures).
- Immune responses to infectious and parasitic agents (VMP 7417). Fall Term 1997-

- 2011. (Selected lectures).
- Special Topics in Molecular Virology and Molecular Cell Biology (VMP 7003; PBS 7003). Fall and Spring Term 1994-2011; 2-7 graduate students per class.
- Research Techniques in Veterinary Microbiology and Parasitology (VMP 7002). Fall and Spring Terms 1994-2006 (1-2 students).
- Seminar: Veterinary Microbiology and Parasitology (VMP 7001; PBS 7001). Fall and Spring Terms 1995, 1996, 2000.
- Biology of Gametes and Embryos (ANC 7052). Fall Term 1994, 1995, 1996, 1997, 1999, 2000; 15-20 students per class (Selected lectures).
- Molecular Epidemiology (ECH7003). Spring Term 1994-2006; 5-8 graduate students per class (Selected lectures).
- Cell and Organ Culture Techniques in Biomedical Research (VMED 7432). Spring Term, 1994, 1995, 1996, 1997, 1998, 2000; 10-15 students per class (Selected lectures).
- Pre-dissertation research (VMED 8900). Fall and Spring Terms 1991-2011.
- Dissertation research (VMED 8000). Fall and Spring Terms 1991-2011.

TEACHING EVALUATIONS AND STUDENTS' RESPONSES:

- Received special salutation by the Dean of the College of Basic Sciences, Louisiana State University for achieving the highest rating of student evaluation for the instructor and the course (9.7 of 10 pts) for the undergraduate course BIOL 4190 Introductory Virology (This course was voluntarily taught by Dr. K. G. Kousoulas). 2003 and 2005.
- Received special salutation by the Dean of the College of Basic Sciences for achieving the highest rating of student evaluation for the instructor and the course (9.6 of 10 pts) for the undergraduate course BIOL4190 Introductory Virology. 2001.
- Received the LSU Distinguished Faculty Award (*for campus-wide teaching excellence*). Louisiana State University. 1999.
- Received excellent ratings in student evaluations of the graduate course VMP7410/BCH7289 "Biochemistry of Viruses" (1997, 1998, 2000).
- Received excellent ratings in student evaluations of the veterinary virology course VMED 5230 (1998, 2000).
- Rated in the top 20 teachers in the College of Basic Sciences (1993, 1995).
- Received highest teaching ratings in the Department of Biochemistry for the Course VMP 7410/BCH 7289; Biochemistry of Viruses (1993).
- Received teaching ratings in the top 10th percentile for the Course VMP 7410/BCH 7289; Biochemistry of Viruses (1995).

THESES/DISSERTATIONS DIRECTED:

MAJOR ADVISOR FOR:

- | | |
|----------------------|---------------------------------------------------------------------------------------------------------------|
| Kathleen Byrne, DVM. | Ph.D. awarded June, 1992. Currently, Associate Professor, Univ. of Washington, School of Veterinary Medicine. |
| Jim Cavalcoli | Ph.D. degree awarded August, 1993. Currently, Senior Scientist, Laboratory for Molecular Genetics, Alameda |

Sukhanya Jayachandra	Laboratories, Pfizer Global Research & Development, Alameda, CA, USA. Ph.D. degree awarded August, 1996. Currently, Senior Scientist, Department of Neuroscience Drug Discovery And Applied Biotechnology, Bristol-Myers Squibb Research and Development, Wallingford, Connecticut 06492, USA.
Rafael E. Luna	Ph.D. degree awarded December, 2004. Currently, Senior Postdoctoral Fellow, Harvard Medical School, Boston, MA.
Timothy Foster	Ph.D. degree awarded, December 1999. Currently, Assistant Professor, Department of Microbiology and Immunology, Louisiana State University, Health Sciences Center, New Orleans, LA.
Galena Rybachuck	DVM, Ph.D. 2008, LSU. Currently, practicing veterinary medicine, Las Vegas, Nevada.
Jeff Melanchon	Ph.D. degree completed December, 2004. M.D. completed May, 2010 from LSU Health Sciences Center, New Orleans. Currently, Resident in Dermatology, University of California, San Diego.
Chad Petit	Ph.D. degree awarded, December, 2005. Currently, postdoctoral fellow. University of North Carolina, Chapel Hill, NC.
Anna Israyelyan	Ph.D. degree awarded, May, 2008. Currently, Senior postdoctoral fellow, Baylor Institute for Immunology, Dallas, TX.
Arun Iyer	Ph.D. degree awarded, May 2010. Currently, Senior Research Scientist, Boehringer-Ingelheim, Inc, Ames, Iowa.
Preston Fulmer	Ph.D. degree awarded, June, 2007. Currently, Research Scientist, US Naval Academy, MD.
Renata Linardi., DVM	Ph.D. awarded, Spring Term, 2010. Currently, postdoctoral fellow, University of Pennsylvania, Philadelphia, PA.
Haxia Kong	MS. degree completed, LSU, May, 2008
Hyun Lee	M.S. degree completed, LSU, May, 2008.
Andrew David, DVM	Ph.D. degree Candidate, LSU, Ph.D, degree expected June, 2012.
Sona Chowdhury	Ph.D. degree Candidate, LSU, Ph.D., degree expected June, 2012.
Anu Charles, DVM	Ph.D. degree Candidate, LSU
Dmitry Chouljenko	Ph.D. degree Candidate, LSU
Misagh Nadir	M.S. degree Candidate, LSU, M.S., expected June, 2012.
Injoong Kim	Ph.D. degree Candidate, LSU
Ahmad Saied	Ph.D. degree Candidate, LSU
Beth Lum	Ph.D. degree Candidate, Department of Animal Sciences, LSU Agricultural Experiment Station, Ph.D. expected June 2012.
Tony Liu	M.S. degree Candidate, LSU, M.S., expected June, 2012.

CO-MAJOR ADVISOR:

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|-----------------------|------------------------------------------------------------------------------------------------------------|
| Bernhard Kaltefleiter | Ph.D. degree completed June, 1991.
Professor, School of Veterinary Medicine, Auburn University. |
| Larry Hanson | Ph.D. degree completed June, 1990. Professor, School of Veterinary Medicine, Mississippi State University. |

POSTDOCTORAL FELLOWS:

- K. Hussain, Ph.D. 1989-1992. Deceased.
- X. Zhang, Ph.D. 1991-1994. Currently, Professor, Department of Microbiology and Immunology, University of Arkansas Medical Center, Little Rock, AK. (co-mentored with Dr. Hans Storz).
- A. Baghian, Ph.D. 2000-2005. Deceased
- V. Chouljenko, PhD, 2000-2005. Currently, Associate Director, BIOMMED, LSU School of Veterinary Medicine, Baton Rouge, LA.
- T. Foster, Ph.D. 2000-2006. Currently, Assistant Professor, Dept. of Microbiology and Immunology, LSU Health Sciences, Center, New Orleans, LA
- S. Rajagolalan, Ph.D. 2006-2007. Currently, staff scientist, Johnson & Johnson, NJ.
- M. Khaleduzzamen, Ph.D. 2007-2008. Currently, Senior Postdoctoral Fellow. Virginia Commonwealth University, Richmond, VA.
- Matt Brown, Ph.D. 2007-2008. Currently, Manager of the Socolofsky Microscopy Center, Department of Biological Sciences, LSU, Baton Rouge, LA.
- R. Subramanian, PhD. 2006-Curr.
- N. Jambunathan, Ph.D. 2007-Curr.
- Iyer, Ph.D. 2008-2010; Currently, postdoctoral fellow, Mount Sinai Medical Center, NY, NY.
- J. D. Walker, PhD, 2008-Curr.
- M. Haque, PhD, Research Assistant Professor. 2009-Curr.

MENTORING OF ASSISTANT PROFESSORS (COBRE and INBRE junior investigators):

- Cristian Apetrei, MD, Ph.D. Currently, Associate Professor, Vaccine Center University of Pittsburgh, Pittsburgh, PA
- Andrew McClean, Ph.D. Currently, Assistant Professor, Tulane National Primate Research Center, Covington, LA
- Bapi Pahar, DVM, Ph.D. Currently, Research Assistant Professor, National Primate Research Center, Covington, LA.
- Deepak Kaushal, Ph.D. Currently, Research Assistant Professor, National Primate Research Center, Covington, LA
- Stephania Cormier, Ph.D. Currently, Associate Professor, Department of Pharmacology, Louisiana State University Health Sciences Center, New Orleans, LA
- Hollie Hale-Donze, Ph.D. Currently, Assistant Professor, Department of Biological Sciences, Louisiana State University, Baton Rouge, LA
- Karin Peterson, Ph.D. Currently, Chief Neuroimmunology Unit. Laboratory of

- Persistent Viral Diseases. National Institute of Allergy and Infectious Diseases. Rocky Mountain Laboratories. Hamilton, MT.
- Marlene Orandle, DVM, PhD, Currently, Assistant Professor, Department of Pathobiological Sciences, Louisiana State University, Baton Rouge, LA
 - Fang-ting Liang, Ph.D. Currently, Associate Professor, Department of Pathobiological Sciences, Louisiana State University, Baton Rouge, LA
 - S. Jeyaseelan, Ph.D. Currently, Assistant Professor, Department of Pathobiological Sciences, Louisiana State University, Baton Rouge, LA
 - Antonieta Guerrero-Plata, Ph.D. Currently, Assistant Professor, Department of Pathobiological Sciences, Louisiana State University, Baton Rouge, LA
 - Chris Mores, Ph.D. Currently, Assistant Professor, Department of Pathobiological Sciences, Louisiana State University, Baton Rouge, LA
 - Vladimir Chouljenko, Ph.D. Currently, Assistant Professor, Department of Pathobiological Sciences, Louisiana State University, Baton Rouge, LA
 - Oswald D'Auvergne, Ph.D. Currently, Associate Professor, Department of Biological Sciences, Southern University and A&M College, Baton Rouge, LA
 - Yetunde Ogunkoya, Ph.D. Currently, Assistant Professor, Department of Biological Sciences, Southern University and A&M College, Baton Rouge, LA
 - Eduardo Martinez, Ph.D. Currently, Assistant Professor, Department of Biological Sciences, Southern University and A&M College, Baton Rouge, LA.
 - Shuju Bai, Ph.D. Currently, Associate Professor, Department of Computer Sciences, Southern University and A&M College, Baton Rouge, LA
 - Shizhong Yang, Ph.D., Currently, Assistant Professor, Department of Computer Sciences, Southern University and A&M College, Baton Rouge, LA
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REPRESENTATIVE PHD AND OTHER ADVISORY COMMITTEES (more than 30):

Louis Schiltz (Biochemistry); Ph.D., 1992
Mark Miller (Microbiology); Ph.D. 1992
Tamy Keadle (VMP); Ph.D., 1992
Wanda Pool (VMP); Ph.D., 1990.
Larry Hanson (VMP); Ph.D., 1990.
Mohamed Awad (VMP), Ph.D., 1995.
Z. Mai (VMP), Ph.D., 1996.
Charles Madden. 1996.
Luis Baez (Microbiology); Ph.D., 1993.
Nancy Foster (Genetics); Ph.D. 1995.
Scott W. Herke (Biological Sciences), Ph.D. 1999
X. Q. Lin (VMP), Ph.D. 1999.
Markus Hardt (BIOL), Ph.D. 2000
Mari Grant (Lab Vet. Med SVM), MS 2001.
Heather Laborde (PBS, SVM), Ph.D. 2004.
Mark Stalder, (PBS, SVM), MS. 2005.
Mary Kamande (CHEM, CBS), PhD, 2005
Niranjan Butchi (PBS, SVM), PhD awarded, May, 2009
Janet Manono (CHEM, CBS), PhD awarded, May 2009
Sunita Seemanapalli (PBS, SVM), PhD awarded, May 2009
Qihua Li. Ph.D. Candidate, University of Texas San Antonio (transferred with his mentor to The University of Southern California).

Beth Lum, Ph.D. Candidate, Department of Animal Sciences, LSU College of Agriculture.

LISTING OF PUBLICATIONS CONCERNING INSTRUCTION:

BOOK CHAPTERS:

- Kaltenboeck, B., and K. G. Kousoulas. 1994. Efficient PCR production of single-stranded DNA sequencing templates. Chapter In Methods in Molecular Biology. The Humana Press Inc., Clifton, NJ.
- Kaltenboeck, B., and K. G. Kousoulas. 1996. Efficient PCR production of single-stranded DNA sequencing templates. Methods Mol Biol 65:149-153.

INSTRUCTIONAL MATERIAL--MULTIMEDIA, ELECTRONIC, ETC.

- Complete lectures for undergraduate course BIOL4190 (Powerpoint and PDFs)
- Complete lectures for graduate course PBS7410, VMED5230 (Powerpoint and PDFs).

AWARDS, LECTURESHIPS, OR PRIZES THAT SHOW RECOGNITION OF TEACHING ACHIEVEMENT:

- Received special salutation by the Dean of the College of Basic Sciences, Louisiana State University for achieving the highest rating of student evaluation for the instructor and the course (9.7 of 10 pts) for the undergraduate course BIOL 4190 Introductory Virology (This course was voluntarily taught by Dr. K. G. Kousoulas). 2003 and 2005.
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- Received the LSU Distinguished Faculty Award (*for campus-wide teaching excellence*). Louisiana State University. 1999.
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- Received excellent ratings in student evaluations of the veterinary virology course VMED 5230 (1998, 2000).
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- Received teaching ratings in the top 10th percentile for the Course VMP 7410/BCH 7289; Biochemistry of Viruses (1995).

RESEARCH AND CREATIVE ACTIVITY:**ARTICLES IN REFEREED JOURNALS:**

1. **Kousoulas**, K. G., S. Person, T. C. Holland. 1978. Timing of some of the molecular events required for cell fusion induced by herpes simplex virus type 1. *J. Virol.* 27: 505-512.
2. Person, S., K. G. **Kousoulas**, R. W. Knowles, G. S. Read, T. C. Holland, P. M. Keller, S. Warner. 1982. Glycoprotein processing in mutants of HSV-1 that induce cell fusion. *Virology* 117: 293-306.
3. **Kousoulas**, K. G., D. J. Bzik, N. Deluca, and S. Person. 1983. The effect of ammonium chloride and tunicamycin on the glycoprotein content and infectivity of herpes simplex virus type 1. *Virology* 125: 468-474.
4. **Kousoulas**, K. G., S. Person, T. C. Holland. 1983. Herpes simplex virus type 1 induced cell fusion occurs in the presence of ammonium chloride inhibited glycoproteins. *Virology* 123: 257-263.
5. **Kousoulas**, K. G., D. J. Bzik, and S. Person. 1983. Effect of the ionophore monensin on herpes simplex virus type 1-induced cell fusion, glycoprotein synthesis and virion infectivity. *Intervirology* 20: 56-60.
6. **Kousoulas**, K. G., P. E. Pellett, L. Pereira, and B. Roizman. 1984. Mutations affecting conformation or sequence of neutralizing epitopes identified by reactivity of viable plaques segregate from *syn* and *ts* domains of HSV-1 gB gene. *Virology* 135: 379-394.
7. Pellett, P. E., K. G. **Kousoulas**, L. Pereira, and B. Roizman. 1985. The anatomy of the herpes simplex virus type 1 (F) gB gene: Primary sequence and predicted protein structure of the wild type and of monoclonal antibody resistant mutants. *J. Virol.* 53: 243-253.
8. **Kousoulas**, K. G., B. Huo, and L. Pereira. 1988. Antibody-resistant mutations in cross-reactive and type-specific epitopes of herpes simplex virus type 1 glycoprotein B map in separate domains. *Virology* 166: 423-431.
9. **Kousoulas**, K. G., M. Arsenakis, and L. Pereira. 1989. A subset of type-specific epitopes map in the amino terminus of herpes simplex virus type 1 glycoprotein B. *J. Gen. Virol.* 70: 735-741.
10. Banks, T., B. Huo, K. G. **Kousoulas**, R. Spaete, C. Pachi, and L. Pereira. 1989. A major neutralizing domain maps within the carboxyl terminal half of the cleaved cytomegalovirus B glycoprotein. *J. Gen. Virol.* 70: 979-985.
11. Pereira, L., M. Ali, K. G. **Kousoulas**, B. Huo, and T. Banks. 1989. Domain structure of herpes simplex 1 glycoprotein B: Neutralizing epitopes map in regions of continuous and discontinuous residues. *Virology* 172: 11-24.
12. Hussain, K., H. Storz, and K. G. **Kousoulas**. 1991. Comparison of bovine coronavirus (BCV) antigens: Monoclonal antibodies to the spike glycoprotein distinguish between vaccine and wild-type strains. *Virology* 183: 442-445.
13. Zhang, X., K. G. **Kousoulas**, and J. Storz. 1991. Comparison of the nucleotide and deduced amino acid sequences of the S genes specified by virulent and avirulent strains of bovine coronaviruses. *Virology* 183: 397-404.
14. Zhang, X., K. G. **Kousoulas**, and J. Storz. 1991. The hemagglutinin/esterase glycoprotein of bovine coronaviruses: Sequence and functional comparisons between virulent and avirulent strains. *Virology* 185: 847-852.
15. Kaltenboeck, B., K. G. **Kousoulas**, and J. Storz. 1991. Detection and strain differentiation of *Chlamydia psittaci* mediated by a two-step polymerase chain reaction

- (PCR). *J. Clin. Microbiol.* 29: 1969-1975.
16. Baghian, A., M. Dietrich, and K. G. Kousoulas. 1992. The effect of mild-acidic pH conditions on herpes simplex virus type 1(HSV-1)-induced cell fusion, infectious virus accumulation, and glycoprotein transport. *Arch. Virol.* 122: 119-131.
 17. Kaltenboeck, B., J. W. Spatafora, X. Zhang, K. G. Kousoulas, M. Blackwell, and J. Storz. 1992. Efficient production of single-stranded DNA as long as 2kb for sequencing of PCR-amplified DNA. *BioTechniques* 12:164-171.
 18. Kaltenboeck, B., K. G. Kousoulas, and J. Storz. 1992. Two-step polymerase chain reactions and restriction endonuclease analyses detect and differentiate *ompA* DNA of the genus *Chlamydia* spp. *J. Clin. Microbiol.* 30: 1098-1104.
 19. Zhang, X., K. G. Kousoulas, and J. Storz. 1992. The hemagglutinin/esterase gene of human respiratory coronavirus strain OC43: Phylogenetic relationships to bovine and murine coronaviruses and influenza C virus. *Virology* 186: 318-323.
 20. Kaltenboeck, B., K. G. Kousoulas, and J. Storz. 1993. Structures of and allelic diversity and relationships among the major outer membrane protein (*ompA*) genes of the four chlamydial species. *J. Bacteriol.* 175: 487-502.
 21. Zhang, X., and K. G. Kousoulas. 1993. Direct sequencing of PCR amplified high gC DNA. *BioTechniques* 14:376-377.
 22. Baghian, A., L. Huang, S. Newman, and K. G. Kousoulas. 1993. Truncation of the carboxy-terminal 28 amino acids of glycoprotein B specified by herpes simplex virus type 1 mutant *amb1511-7* causes extensive cell fusion. *J. Virol.* 67: 2396-2401.
 23. Baghian, A., and K. G. Kousoulas. 1993. Role of the Na, K pump in herpes simplex-induced cell fusion: Melittin causes specific reversion of syncytial mutants with the *syn1* mutation to *syn+* (wild-type) phenotype. *Virology* 196: 548-556.
 24. Cavalcoli, J., Homa, F., and K. G. Kousoulas. 1993. Resolution of genotypic and phenotypic properties of herpes simplex virus type 1 temperature sensitive mutant *tsZ47*: Evidence for allelic complementation in the UL28 gene. *Virology* 197: 23-34.
 25. Hanson, L. A., K. G. Kousoulas, and R. L. 1994. Channel catfish herpesvirus (CCV) encodes a functional thymidine kinase gene: elucidation of a point mutation that confers resistance to Ara-T. *Virology*. 202: 659-64.
 26. Zhang, X., W. Herbst, K. G. Kousoulas, and J. Storz. 1994. Comparison of the S genes and the biological properties of respiratory and enteropathogenic bovine coronaviruses. *Arch. Virol.* 134:421-6.
 27. Mai, Z., K. G. Kousoulas, D. W. Horohov, and T. R. Klei. Cross-species PCR cloning of gerbil (*Meriones unguiculatus*) interleukin-2 cDNA and its expression in COS-7 cells. 1994. *Vet. Immunol. & Immunopathol.* 40:63-71.
 28. Zhang, X. M., W. Herbst, K. G. Kousoulas, and J. Storz. 1994. Biological and genetic characterization of a hemagglutinating coronavirus isolated from a diarrhoeic child. *J. Med. Virol.* 44:152-161.
 29. Kaltenboeck, B., and K. G. Kousoulas. 1994. Efficient PCR production of single-stranded DNA sequencing templates. Chapter *In Methods in Molecular Biology*. The Humana Press Inc., Clifton, NJ.
 30. Byrne, K. M., D. W. Horohov, and K. G. Kousoulas. 1995. Glycoprotein B of bovine herpesvirus-1 binds heparin. *Virology*. 209:230-5.
 31. Chouljenko, V., S. Jayachandra, G. Rybachuk, and K. G. Kousoulas. 1996. Efficient long PCR site specific mutagenesis of a high-GC-template. *BioTechniques* 21:472-80.
 32. Baghian, A., K. G. Kousoulas, R. Truax, and J. Storz. 1996. Specific antigens of *Chlamydia pecorum* and their homologues in *Chlamydia psittaci* and *Chlamydia trachomatis*. *Am. J. Vet. Res.* 57: 1720-25.
 33. Baghian, A. K. G. Kousoulas, and F. Enright. 1997. An amphipathic α -helical peptide-analog of melittin inhibits herpes simplex virus (HSV-1)-induced cell fusion and virus

- spread. *Peptides* 18:177-183.
34. Jayachandra, S., A. Baghian, and K. G. **Kousoulas**. 1997. Herpes simplex virus glycoprotein K(gK) is not essential for virus replication in actively replicating cells, but is required for efficient envelopment and translocation of infectious virions to extracellular spaces. *J. Virol.* 71:5012-5024.
 35. Chouljenko, V. N., K. G. **Kousoulas**, X. Lin, and J. Storz. 1998. Nucleotide and Predicted Amino Acid Sequences of All Genes Encoded by the 3' Genomic Portion (9.5 kb) of Respiratory Bovine Coronaviruses and Comparisons Among Respiratory and Enteric Coronaviruses. *Virus Genes.* 17: 33-42.
 36. Foster, T. P., G. V. Rybachuck, and K. G. **Kousoulas**. 1998. Expression of the enhanced green fluorescence protein by herpes simplex virus 1 (HSV-1) as an *in vitro* or *in vivo* marker for virus entry and replication. *J. Virol. Meth.* 75:151-160.
 37. Moreau, J. D., D. G. Satterlee, J. J. Rejman, G. G. Cadd, K. G. **Kousoulas**, and W. C. Fioretti. 1998. Active immunization of Japanese quail hens with a recombinant chicken inhibin fusion protein enhances production performance. *Poultry Science.* 77:894-901.
 38. Baghian, A., C. V. Reyes, A. Mendoza, T. N. Tully, Jr., and K. G. **Kousoulas**. 1999. Production of a rabbit anti-cockatiel immunoglobulin G and characterization of its cross-reactivities with immunoglobulin G of other psittacine species. *Avian Dis.* 43:48-54.
 39. Foster, T. P., V. N. Chouljenko, and K. G. **Kousoulas**. 1999. Functional characterization of the HveA homolog specified by African green monkey kidney cells through the use of a herpes simplex virus expressing the green fluorescence protein. *Virology* 258:365-374.
 40. Foster, T. P., and K. G. **Kousoulas**. 1999. Genetic analysis of the role of herpes simplex virus (HSV-1) glycoprotein K in infectious virus production and egress. *J. Virol.* 73:8457-8468.
 41. Baghian, A., M. Luftig, J. Black, Y. Meng, C-P. Pau, T. Voss, P. Pellett, and K. G. **Kousoulas**. 2000. Glycoprotein B of human herpesvirus 8 is a present on virion particles in a predominantly cleaved form. *Virology* 269: 18-25.
 42. Wang, Q. J., F. J. Jenkins, L. P. Jacobson, L. A. Kingsley, R. D. Day, Z. W. Zhang, Y. X. Meng, P. E. Pellet, K. G. **Kousoulas**, A. Baghian, and C. R. Rinaldo, Jr. (2001). Primary human herpesvirus 8 infection generates a broadly specific CD8(+) T-cell response to viral lytic cycle proteins. *Blood* 97, 2366-73.
 43. Lin, X. Q., V. N. Chouljenko, K. G. **Kousoulas**, and J. Storz. 2000. Temperature-sensitive acetylerase activity of haemagglutinin-esterase specified by respiratory bovine coronaviruses. *J. Med. Virol.* 49:1-9.
 44. Storz, J, X. Q. Lin, C. W. Purdy, V. N. Chouljenko, K. G. **Kousoulas**, F. M. Enright, W. C. Gilmore, R. E. Briggs, and R. W. Loan. 2000. Coronavirus and Pasteurella infections in bovine shipping fever pneumonia and Evans's criteria for causation. *J. Clin. Microb.* 38:3291-3298.
 45. Wang Q. J., F. J. Jenkins, L. P. Jacobson, Y. X. Meng, P. E. Pellett, L. A. Kingsley, K. G. **Kousoulas**, A. Baghian, and C. R. Rinaldo Jr. 2000. CD8+ cytotoxic T lymphocyte responses to lytic proteins of human herpesvirus 8 in human immunodeficiency virus type-1-infected and -uninfected individuals. *J. Infect Dis.* 182:928-932.
 46. Foster, T. P., Melancon, J. M., and **Kousoulas**, K. G. 2001. An alpha-helical domain within the carboxyl terminus of herpes simplex virus type 1 (HSV-1) glycoprotein B (gB) is associated with cell fusion and resistance to heparin inhibition of cell fusion. *Virology* 287: 18-29.
 47. Foster, T. P., Rybachuk, G. V., and **Kousoulas**, K. G. 2001. Glycoprotein K specified by herpes simplex virus type 1 is expressed on virions as a Golgi complex-dependent glycosylated species and functions in virion entry. *J Virol* 75:12431-12438.
 48. Chouljenko, V. N., Lin, X. Q., Storz, J., **Kousoulas**, K. G., and Gorbalyena, A. E. 2001.

- Comparison of genomic and predicted amino acid sequences of respiratory and enteric bovine coronaviruses isolated from the same animal with fatal shipping pneumonia. *J Gen Virol* **82**: 2927-2933.
49. Chouljenko, V. N., T. P. Foster, X. Lin, J. Storz, and K. G. **Kousoulas**. 2001. Elucidation of the genomic nucleotide sequence of bovine coronavirus and analysis of cryptic leader mRNA fusion sites. *Adv Exp Med Biol*. 494: 49-55.
 50. Baghian, A., V. N. Chouljenko, O. Dauvergne, M. J. Newmant, S. Baghian, and K. G. **Kousoulas**. 2002. Protective immunity against lethal HSV-1 challenge in mice by nucleic acid-based immunization with herpes simplex virus type-1 genes specifying glycoproteins gB and gD. *J Med Microbiol* 51:350-7.
 51. Foster T. P., X. Alvarez, and K. G. **Kousoulas**. Plasma membrane topology of syncytial domains of Herpes Simplex Virus Type I glycoprotein K (gK): The UL20 protein enables cell surface localization of gK, but not gK-mediated cell-to-cell fusion. 2003. *J Virol*. 77:499-510 (Cover of the Journal).
 52. Coker, P. R., K. L. Smith, P. F. Fellows, G. Rybachuck, K. G. **Kousoulas**, and M. E. Hugh-Jones. 2003. Bacillus anthracis Virulence in Guinea Pigs Vaccinated with Anthrax Vaccine Adsorbed Is Linked to Plasmid Quantities and Clonality. *J Clin Microbiol* 41:1212-1218.
 53. Foster T. P., G. V. Rybachuk, X. Alvarez, O. Borkhsenius, and K. G. **Kousoulas**. Overexpression of gK in gK-transformed cells collapses the Golgi apparatus into the endoplasmic reticulum inhibiting virion egress, glycoprotein transport, and virus-induced cell fusion. 2003. *Virology* 317: 237-252.
 54. Foster, T.P., J.M. Melancon, J.D. Baines, and K.G. **Kousoulas**. 2004. The herpes simplex virus type 1 UL20 protein modulates membrane fusion events during cytoplasmic virion morphogenesis and virus-induced cell fusion. *J Virol*. 78:5347-5357.
 55. Luna, R.E., F. Zhou, A. Baghian, V. Chouljenko, B. Forghani, S.J. Gao, and K.G. **Kousoulas**. 2004. Kaposi's sarcoma-associated herpesvirus glycoprotein K8.1 is dispensable for virus entry. *J Virol*. 78:6389-6398.
 56. Melancon, J.M., T.P. Foster, and K.G. **Kousoulas**. 2004. Genetic analysis of the herpes simplex virus type 1 UL20 protein domains involved in cytoplasmic virion envelopment and virus-induced cell fusion. *J Virol*. 78:7329-7343.
 57. Foster, T.P., J.M. Melancon, T.L. Olivier, and K.G. **Kousoulas**. 2004. Herpes simplex virus type 1 glycoprotein K and the UL20 protein are interdependent for intracellular trafficking and trans-Golgi network localization. *J Virol*. 78:13262-13277.
 58. Melancon, J.M., R.E. Luna, T.P. Foster, and K.G. **Kousoulas**. 2005. Herpes simplex virus type 1 gK is required for gB-mediated virus-induced cell fusion, while neither gB and gK nor gB and UL20p function redundantly in virion de-envelopment. *J Virol*. 79:299-313.
 59. Roy, M., J. Reiland, B.P. Murry, V. Chouljenko, K.G. **Kousoulas**, and D. Marchetti. 2005. Antisense-mediated suppression of Heparanase gene inhibits melanoma cell invasion. *Neoplasia* 7:253-262.
 60. Petit, C.M., J.M. Melancon, V.N. Chouljenko, R. Colgrove, M. Farzan, D.M. Knipe, and K.G. **Kousoulas**. 2005. Genetic analysis of the SARS-coronavirus spike glycoprotein functional domains involved in cell-surface expression and cell-to-cell fusion. *Virology* 341:215-230.
 61. Petit, C.M., R. Colgrove, M. Farzan, D.M. Knipe, and K.G. **Kousoulas**. 2006. Palmitoylation of the cysteine-rich endodomain of the SARS-coronavirus spike glycoprotein is important for spike-mediated cell fusion. *Virology* 341:215-230.
 62. Fulmer, P., J. M. Melancon, and K.G. **Kousoulas**. 2007. The UL20 function precedes and is required for UL11 function in herpes simplex virus type-1 (HSV-1) cytoplasmic envelopment. *J. Virol*. 81: 3097-108.

63. Israyelyan, A., J. Melancon, L.G. Lomax, C. Leuschner, M. T. Kearney, V. N. Chouljenko, A. Baghian, and K. G. **Kousoulas**. 2007. Effective treatment of human breast tumor in a mouse xenograft model with herpes simplex virus type 1 specifying the NV1020 genomic deletion and the gBsyn3 syncytial mutation enabling high viral replication and spread in breast cancer cells. *Hu, Gene Ther.* 18:457-73.
64. Osorio, Y., K. R. Mott, A. M. Jabbar, A. Moreno, T. P. Foster, K. G. **Kousoulas**, and H. Ghiasi. 2007. Epitope mapping of HSV-1 glycoprotein K (gK) reveals a T cell epitope located within the signal domain of gK. *Virus Res.* 128:71-80.
65. Mott K. R., G. C. Perng, Y. Osorio, K. G. **Kousoulas**, and H. Ghiasi. 2007. A recombinant herpes simplex virus type 1 expressing two additional copies of gK is more pathogenic than wild-type virus in two different strains of mice. *J Virol.* 23:12962-72.
66. Melancon J. M, P. A. Fulmer PA, and K. G. **Kousoulas**. 2007. The herpes simplex virus UL20 protein functions in glycoprotein K (gK) intracellular transport and virus-induced cell fusion are independent of UL20 functions in cytoplasmic virion envelopment. *Virology J.* 4:120.
67. Subramanian, O. D'Auvergne, H. Kong, and K.G. **Kousoulas**. 2008. The cytoplasmic terminus of Kaposi's sarcoma associated herpesvirus (KSHV) glycoprotein B (gB) is not required for egress and infectivity. *J. Virol.* 82:7144-54.
68. Foster, T. P, J. M. Melancon, K. G. **Kousoulas**. 2008. Functional and physical interactions of the herpes simplex virus type-1 (HSV-1) UL20 membrane protein with glycoprotein K (gK). *J. Virol.* 82:6310-23.
69. Israyelyan, A., V. N. Chouljenko, A. Baghian, M. T. Kearney, and K. G. **Kousoulas**. 2008. Herpes simplex virus type-1(HSV-1) oncolytic and highly fusogenic mutants carrying the NV1020 genomic deletion effectively inhibit primary and metastatic tumors in mice. *Virology J.* 5: 68.
70. David, A., A. Baghian, T. N. Foster, V. Chouljenko, and K. G. **Kousoulas**. 2008. The herpes simplex virus type-1 (HSV-1) glycoprotein K (gK) is essential for viral corneal spread and neuroinvasiveness. *Curr Eye Res.* 2008 May; 33(5):455-67.
71. Kumar K.G., J.L. Trevaskis, D.D. Lam, G.M. Sutton, R.A. Koza, V.N. Chouljenko, K.G. **Kousoulas**, P.M. Rogers, R.A. Kesterson, M. Thearle, A.W. Ferrante, R.L. Mynatt, T.P. Burris, J.Z. Dong, H.A. Halem, M.D. Culler, L.K. Heisler, J.M. Stephens, A. A. Butler. 2008. Identification of adropin as a secreted factor linking dietary macronutrient intake with energy homeostasis and lipid metabolism. *Cell Metab.* 2008. 8:468-81.
72. Iyer, A. V., B. Pahar, M. J. Boudreaux, N. Wakamatsu, A. F. Roy, V. N. Chouljenko, A. Baghian, C. Apetrei, P. Marx, and K. G. **Kousoulas**. 2009. Vesicular stomatitis virus recombinant viruses expressing the West Nile virus E (WNV) glycoprotein efficiently protect mice against lethal challenge with the virulent WNV strain LSU-AR01. *Vaccine.* 27:893-903.
73. Iyer, A. V., M. J. Boudreaux, N. Wakamatsu, A. F. Roy, A. Baghian, V. N. Chouljenko, and K. G. **Kousoulas**. 2009. Complete genome analysis and virulence characteristics of the Louisiana West Nile virus strain LSU-AR01. *Virus Genes.* 38:204-14.
74. Lee, H. C., V. N. Chouljenko, D. V. Chouljenko, M. J. Boudreaux, and K. G. **Kousoulas**. 2009. The herpes simplex virus type 1 glycoprotein D (gD) cytoplasmic terminus and full-length gE are not essential and do not function in a redundant manner for cytoplasmic virion envelopment and egress. *J Virol.* 83:6115-24.
75. Israyelyan A, E. J. Shannon, A. Baghian, M. T. Kearney, and K. G. **Kousoulas**. 2009. Thalidomide suppressed the growth of 4T1 cells into solid tumors in Balb/c mice in a combination therapy with the oncolytic fusogenic HSV-1 OncdSyn. *Cancer Chemother Pharmacol.* Mar 24. [Epub ahead of print].
76. Chouljenko, V. N., A. V. Iyer, S. Chowdhury, D. V. Chouljenko, and K. G. **Kousoulas**. 2009. The amino terminus of herpes simplex virus type 1 glycoprotein K (gK) modulates

- gB-mediated virus-induced cell fusion and virion egress. *J. Virol.* **83**:12301-12313.
77. Subramanian, R. and K. G. **Kousoulas**. 2009. Inhibition of the Kaposi's sarcoma associated herpesvirus (KSHV) glycoprotein B (gB) and glycoprotein K8.1 synthesis causes inhibition of vIL-6 and VEGF transcription. *J. Virol.* 2009 Dec 2. [Epub ahead of print].
 78. Subramanian, R., I. Sehgal, O. D'Auvergne, and K. G. **Kousoulas**. 2010. Kaposi's sarcoma-associated herpesvirus glycoproteins B and K8.1 regulate virion egress and synthesis of vascular endothelial growth factor and viral interleukin-6 in BCBL-1 cells. *J. Virol.* **84**:1704-1714.
 79. Hazari, S., P. K. Chandra, B. Poat, S. Datta, R. F. Garry, T. P. Foster, K. G. **Kousoulas**, T. Wakita, and S. Dash. 2010. Impaired antiviral activity of interferon alpha against hepatitis C virus 2a in Huh-7 cells with a defective Jak-Stat pathway. *Virol. J.* **7**:36.
 80. Chouljenko, V. N., A. V. Iyer, S. Chowdhury, J. Kim, and K. G. **Kousoulas**. 2010. The herpes simplex virus type 1 UL20 protein and the amino terminus of glycoprotein K (gK) physically interact with gB. *J. Virol.* **84**:8596-8606.
 81. Walker, J. D., I. Sehgal, V. Chouljenko, and K. G. **Kousoulas**. Novel oncolytic herpes simplex virus expressing prostaglandin dehydrogenase effectively limits growth of primary breast tumors and metastatic disease in the 4T1/ Balb/c mouse system (In Press).
 82. Walker, J. D., I. Sehgal, and K. G. **Kousoulas**. 2011. Oncolytic herpes simplex virus 1 encoding 15-prostaglandin dehydrogenase mitigates immune suppression and reduces ectopic primary and metastatic breast cancer in mice. *J. Virol.* **85**:7363-7371.
 83. Gautam, R., A. Iyer, M. Hunter, A. Das, T. Williams, J. Dufour, C. Apetrei, K. G. **Kousoulas**, and P. A. Marx. 2011. Vesicular stomatitis virus-simian retrovirus type 2 vaccine protects macaques from detectable infection and B-cell destruction. *J. Virol.* **85**:5889-5896.
 84. Jambunathan, N., S. Chowdhury, R. Subramanian, V. N. Chouljenko, J. D. Walker, and K. G. **Kousoulas**. 2011. Site-Specific Proteolytic Cleavage of the Amino-terminus of Herpes Simplex Virus Type-1 (HSV-1) Glycoprotein K (gK) on Virion Particles Inhibits Virus Entry. *J. Virol.* Oct 12, ahead of print.
 85. Chouljenko, D., I-J Kim, V. N. Chouljenko, R. Subramanian, and K. G. **Kousoulas**. 2011. Functional hierarchy of viral glycoproteins and membrane proteins in cytoplasmic virion envelopment. *J. Virol.* Submitted.
 86. David, A., A. Saied, A. Charles, V. N. Chouljenko, R. Subramanian, and K. G. **Kousoulas**. 2011. Herpes simplex type-1 (HSV-1) McKrain virions lacking gK are not transported in either retrograde or anterograde manner in neuronal axons. *Natl. Acad. Sci.* In Preparation.

REPRESENTATIVE ABSTRACTS AND PROCEEDINGS:

1. **Kousoulas**, K.G., S. Person, T.C. Holland, R.W. Knowles. The influence of inhibitors on cell fusion produced by a syncytial mutant of herpes simplex virus type 1, p. 161. Third International Symposium on Oncogenesis and Herpes Viruses. July, 1977. Cambridge, MA.
2. Person, S., K.G. **Kousoulas**, S.C. Warner. The synthesis and processing of glycoproteins specified by syncytial mutants of HSV-1, p. 69. Fourth Cold Spring Harbor Meetings on Herpes Viruses. August-September, 1979. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.
3. **Kousoulas**, K.G., S. Person. NH₄Cl inhibits cell fusion and the accumulation of mature

- HSV-1 glycoproteins, p. 19. Fifth Cold Spring Harbor Meeting on Herpes Viruses. August, 1980. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.
4. **Kousoulas**, K.G., D. Bzik, N.A. Deluca, S. Person. Processing of HSV-1 glycoproteins. p 52. International Workshop on Herpes Viruses. July, 1981. Bologna, Italy.
 5. **Kousoulas**, K.G., L. Pereira, D. Dondero. Herpes simplex virus glycoprotein gA/B: Purification and studies on two antigenic domains, p. 165, Sixth Cold Spring Harbor Meetings on Herpes Viruses. August-September, 1982. Cold Spring Harbor, NY.
 6. **Kousoulas**, K.G., L. Pereira, P. Pellett, B. Roizman. The major antigenic domains of the gA/B glycoprotein gene of HSV-1(F). p 123. Eighth International Herpesvirus Workshop. August, 1983. Oxford, England.
 7. Pellett, P.E., K.G. **Kousoulas**, L. Pereira, B. Roizman. The predicted secondary structure of the herpes simplex virus type 1 glycoprotein B and of its monoclonal antibody resistant mutants. p 25. Fifth International Conference on Methods in Protein Sequence Analysis. July-August, 1984. Churchill College, Cambridge, England.
 8. **Kousoulas**, K.G., C. Chan, G. Lee, L. Pereira. Mutations in HSV-1 specific domains of glycoprotein B gene segregate from potent cross neutralizing sites. p. 165. Tenth International Herpesvirus Workshop. August, 1985. Ann Arbor, MI.
 9. **Kousoulas**, K.G., B. Huo, L. Pereira. Antibody resistant mutations in cross-reactive and type specific epitopes of herpes simplex virus 1 glycoprotein B map in separate domains. p. 28. Annual Meeting of the American Society of Virology. June, 1988. At the University of Texas at Austin, Austin, TX.
 10. Pool, W.V., G.F. Amborski, D.C. Carver, K.G. **Kousoulas**, M.J. Neuman. Clinical disease state and immune response to BLV in experimentally infected cows. p. 7. Annual Meeting of the South Central Branch of the American Society for Microbiology and Mid-South Biochemists. November, 1988. Louisiana State University, Baton Rouge, LA.
 11. **Kousoulas**, K.G., M. Arsenakis, L. Pereira. A novel approach to mapping epitopic sites of type specific monoclonal antibodies on chimeric glycoproteins. p. 114. 12th International Herpesvirus Workshop. July-August, 1987. University of Pennsylvania, Philadelphia, PA.
 12. Pereira, L., K.G. **Kousoulas**, M. Ali, C. Christian, B. Huo. Fine mapping structural and functional domains of HSV-1 glycoprotein B. p. 150. 13th International Herpesvirus Workshop. University of California, Irvine. August, 1988. Irvine, CA.
 13. Baghian, A., K.G. **Kousoulas**. Low pH conditions inhibit HSV-1-induced cell fusion reversibly and without affecting glycoprotein maturation and virus growth. p. 239. 14th International Herpesvirus Workshop. August, 1989. Nyborg Strand, Denmark.
 - Horohov, D.W., J. Mester, S.S. Pourciau, A. Baghian, B.T. Rouse, K.G. **Kousoulas**. Identification of cytotoxic T lymphocyte epitopes on herpes simplex virus glycoprotein B. p. 149. 14th International Herpesvirus Workshop. August, 1989. Nyborg **Strand, Denmark**.
 14. Pool, W.V., K.G. **Kousoulas**, M.J. Neuman, G.F. Amborski. The importance of immunity to viral proteins in BLV disease progression. 70th Conference of Research Workers in Animal Disease. p. 135. November, 1989. Chicago, IL.
 15. Kaltenboeck, B., N. Schmeer, K.G. **Kousoulas**, J. Storz. Bovine Chlamydial Mastitis: Biotype and PCR analysis of an isolate. 70th Conference of Workers in Animal Disease. p 52. November, 1989. Chicago, IL.
 16. Hanson, L.A., R.L. Thune, K.G. **Kousoulas**. Identification of a channel catfish virus-induced thymidine kinase. p. 378. Annual Meeting of the American Society for Microbiology. May, New Orleans, LA.
 17. Hussain, K.A., J. Storz, K.G. **Kousoulas**. 1990. Vaccine and wild-type strains of bovine coronavirus specify antigenically distinct E2 glycoproteins. p. 170. VIIIth International

- Congress of Virology. August, Berlin, West Germany.
18. Hanson, L.A., R.L. Thune, K.G. **Kousoulas**. 1990. Gene-mapping and biochemical characterization of channel catfish herpesvirus (CCV)-encoded thymidine kinase. p. 202 VIIIth International Congress of Virology. August, Berlin, West Germany.
 19. Kaltenboeck, B., K. G. **Kousoulas**, and J. Storz. 1990. Biovar and PCR analysis of a *Chlamydia psittaci* isolate from bovine mastitis. In "Chlamydial Infections: Proceedings of the 7th International Symposium on Human Chlamydial Infections" (W. R. Bowie, H. D. Caldwell, R. P. Jones, P-A, Mardh, G. L. Ridway, J. Schachter, W. E. Stamm, and M. E. Ward, Eds), pp. 383-386, Cambridge University Press, Cambridge, UK.
 20. Byrne K. M., K. G. **Kousoulas**. 1990. Production of BHV-1 gIII in a transient expression system and construction of gIII truncations. p. 16. Conference of Research Workers in Animal Disease. November, Chicago IL.
 21. Byrne, K. M., D. W. Horohov, and K. G. **Kousoulas**. 1991. The effect of BHV-1 on lymphoproliferation when expressed in a transient expression and as a gIII-null virus. p. 16. Seventy-second Annual Meeting of the Conference of Research Workers in Animal Diseases. November, Chicago, IL.
 22. Zhang, X. M., K. G. **Kousoulas**, and J. Storz. 1991. Biological and genomic relationships between respiratory and enteropathogenic bovine coronaviruses. p. 14. Seventy-second Annual Meeting of the Conference of Research Workers in Animal Diseases. November, Chicago, IL.
 23. Byrne, K. M., D. Horohov, and K. G. **Kousoulas**. 1991. Isolation and characterization of a gIII-null bovine herpesvirus-1 mutant. p. 20. Meeting of the South Central branch of the American Society for Microbiology. November, Jackson, Mississippi.
 24. Byrne, K. M., F. Enright, R. C. Corstvet, D. Horohov, and K. G. **Kousoulas**. 1991. Lymphoproliferation in response to BHV-1 glycoprotein III and truncated derivatives expressed in COS-7 cells. 10th Annual Meeting of the American Society for Virology. Colorado State University, July. Fort Collins, CO.
 25. Baghian, A., J. M. Jaynes, and K. G. **Kousoulas**. 1991. Peptide analogs to cecropins and magainins inhibit HSV-1-induced cell fusion. p. 38. Meeting of the South Central branch of the American Society for Microbiology. November 15-16, Jackson, Mississippi.
 26. Zhang, X., K. G. **Kousoulas**, and J. Storz. 1991. Phylogenetic relationships among the hemagglutinin/esterase genes of human, bovine and murine coronaviruses and influenza C virus. p. 38. Meeting of the South Central branch of the American Society for Microbiology. November, 1991. Jackson, Mississippi.
 27. Cavalcoli, J., A. Baghian, and K. G. **Kousoulas**. Mapping of a mutation in HSV-1(ts Z47) inhibiting post-golgi glycoprotein transport to an 899 bp DNA fragment. p. 143. XVI International Herpesvirus Workshop, July, 1991. Pacific Grove, CA.
 28. Baghian, A., and K. G. **Kousoulas**. Inhibition of the Na/K-ATPase by melittin results in specific conversion of *syn1* (UL53;GK) phenotypes to *syn+* (wild-type) while other *syn* phenotypes are unaffected. p. 265. XVII International Herpesvirus Workshop, August, 1992, Edinburgh, Scotland.
 29. Baghian, A., L. Huang, S. Newman, and K. G. **Kousoulas**. Functional domains of the carboxy-terminus of HSV-1 glycoprotein B: truncation of the terminal 28 amino acids causes extensive cell fusion. p. 35. XVII International Herpesvirus Workshop, August, 1992, Edinburgh, Scotland.
 30. Kaltenboeck, B., K. G. **Kousoulas** and J. Storz. Chromosomal and *ompA* locus phylogenies are congruent among chlamydial species, but not among human serovars of *C. trachomatis*. p. 37. Proceedings of the European Society for Chlamydia Research, September, 1992, The University of Uppsala, Stockholm, Sweden.
 31. Cavalcoli, J. D., F. L. Homa, and K. G. **Kousoulas**. Resolution of genotypic and

- phenotypic properties of herpes simplex virus type 1 temperature sensitive mutant tsZ47 reveals allelic complementation in the UL28 gene. p. C139. XVIII International Herpesvirus Workshop, July, 1993. Pittsburgh, PA.
32. Baghian, A., K. G. **Kousoulas**, R. Truax, and J. Storz. Specific and common antigens of *Chlamydia (C) psittaci* and *C. trachomatis*. p. 58. Proceedings of the European Society for Chlamydia Research, September, 1992. The University of Uppsala, Stockholm, Sweden.
 33. Baghian, A., K. G. **Kousoulas**, R. Truax, and J. Storz. Unique proteins of elementary bodies from *Chlamydia pecorum*. p. 64. Proceedings of the 74th Conference of Research Workers in Animal Diseases. November 1993. Chicago, IL.
 34. Jayachandra, S., A. Baghian, J. D. Cavalcoli, Z. Zheng, and K. G. **Kousoulas**. Role of herpes simplex virus type-1 glycoprotein K in cell fusion and virus replication. p. 16. American Society for Microbiology South Central Branch and Midsouth Biochemists. November, 1993. Louisiana State University, Baton Rouge, LA.
 35. Cavalcoli, D. J., O. Akinniyi, S. Jayachandra, A. Baghian, and K. G. **Kousoulas**. Molecular characterization of herpes simplex virus type-1 glycoprotein L. p. 16. American Society for Microbiology South Central Branch and Midsouth Biochemists. November, 1993. Louisiana State University, Baton Rouge, LA.
 36. Baghian, A., and K. G. **Kousoulas**. Ouabain, a Na, K pump inhibitor, inhibits herpes simplex virus type-1 replication and virus-induced cell fusion. p. 18. American Society for Microbiology South Central Branch and Midsouth Biochemists. November, 1993. Louisiana State University, Baton Rouge, LA.
 37. Mai, Z., K. G. **Kousoulas**, D. W. Horohov, T. R. Klei. Molecular cloning, expression and purification of gerbil (*Meriones unguiculatus*) Interleukin 2. p. 10. American Society for Microbiology South Central Branch and Midsouth Biochemists. November, 1993. Louisiana State University, Baton Rouge, LA.
 38. Baghian, A., S. Jayachandra, L. Huang and K. G. **Kousoulas**. Studies on the structure and function of glycoprotein K specified by wild-type and syncytial strains of herpes simplex virus type-1(HSV-1) using monoclonal antibodies to gK and permanently transformed cell lines with mutant and wild-type gK genes. p. 35. XVIII International Herpesvirus Workshop, July, 1994. Vancouver, Canada.
 39. Baghian, A., S. Jayachandra, J. D. Cavalcoli, L. Huang, O. Akinniyi, and K. G. **Kousoulas**. Characterization of Herpes Simplex Virus Type-1 Glycoprotein L specified by syncytial and wild-type strains of herpes simplex virus type 1(HSV-1). p. 36. XVIII International Herpesvirus Workshop, July, 1994. Vancouver, Canada.
 40. Baghian, A., S. Jayachandra, H. Allaudeen, R. M. Emmanuel, and K. G. **Kousoulas**. Novel poloxamers with *in vitro* antiviral activity against herpes simplex virus. p. 45. XVIII International Herpesvirus Workshop, July, 1994. Vancouver, Canada.
 41. Chouljenko, V., A. Baghian, L. Huang, J. D. Moreau, D. G. Satterlee, K. G. **Kousoulas**, and W. C. Fioretti. Expression and purification of chicken α -inhibin as a fusion protein with the *E. coli* maltose binding protein. p. 84. Poultry Science Association Annual Meeting, August, 8-12, 1994. Mississippi State University, Starkville, MS.
 42. Chouljenko, V., G. Satteneni, S. Newman, D. G. Satterlee, W. C. Fioretti, and K. G. **Kousoulas**. Detection of ostrich DNA sequences that are homologous to sex specific DNA sequences of other animal species. p. 33. Poultry Science Association Annual Meeting, August, 8-12, 1994. Mississippi State University, Starkville, MS.
 43. Moreau, J. D., D. G. Satterlee, V. Chouljenko, and K. G. **Kousoulas**. Synthesis and cloning of a cDNA library derived from ostrich (*Struthio Camelus*) ovarian tissue. p. 33. Poultry Science Association Annual Meeting, August, 8-12, 1994. Mississippi State University, Starkville, MS.
 44. Jayachandra, S., A. Baghian, and K. G. **Kousoulas**. The terminal 28 amino acids of

- HSV-1 glycoprotein B(gB) are required for fusion of glycoprotein K(gK) transformed cell lines. American Society of Virology. p. 25. July, 1995. Austin, TX.
45. Baghian, A., V. Chouljenko, o.D'Auvergne, and K.G. **Kousoulas**. Genetic immunization against Herpes simplex virus type-1 infection in mice. Second Annual Molecular Biology and Biotechnology Conference. Baton Rouge, LA. 1996.
 46. Chouljenko, V.N. and K.G. **Kousoulas**. DNA-based sex-determination of ratites. Second Annual Molecular Biology and Biotechnology Conference. Baton Rouge, LA. 1996.
 47. Chouljenko, V.N., S. Jayachandra, G.V. Rybachuk, and K.G. **Kousoulas**. Efficient Long-PCR site-specific mutagenesis of high-GC templates. Second Annual Molecular Biology and Biotechnology Conference. Baton Rouge, LA. 1996.
 48. Chouljenko, V.N., X.Q. Lin, G.V. Rybachuk, K.G. **Kousoulas**, and J. Storz. Respiratory bovine coronavirus 3'-end genomic sequences encoding structural proteins and their comparison with enteric and vaccine coronavirus strains. p. 12. Joint meeting of the South Central Branch of the American Society for Microbiology and Mid-South Biochemists. New Orleans, LA, Nov. 1996.
 49. Chouljenko, V.N., A. Baghian, K.G. **Kousoulas**, T. Tully, and J. Storz. Cloning, DNA sequencing, and bacterial expression of the *Chlamydia Psittaci* MOMP protein for vaccine purposes. p. 15. Joint Meeting of the South Central Branch of the American Society for Microbiology and Mid-South Biochemists. New Orleans, LA, Nov. 1996.
 50. Lin, X. Q., V. N. Chouljenko, K. G. **Kousoulas**, and J. Storz. Functional hemagglutinin-esterase differences in enteric and respiratory bovine coronaviruses. p. 151. The 78th Annual Conference of Research Workers in Animal Diseases. Chicago, IL.
 51. Chouljenko, V. N., K. G. **Kousoulas**, X. Q. Lin, and J. Storz. Comparative analyses of the phenotypic properties and the cDNA-predicted amino acid sequences of respiratory and enteric bovine coronaviruses. p. 205. The 78th Annual Conference of Research Workers in Animal Diseases. Chicago, IL.
 52. Lin, X. Q., V. N. Chouljenko, K. G. **Kousoulas**, and J. Storz. Temperature sensitivity of acetylerases from respiratory and enteric bovine coronaviruses. p. 17. Joint Annual Meeting of the South-Central Branch of the American Society for Microbiology and Mid-South Biochemists. Jackson, MI. Nov. 7-8, 1997.
 53. Foster, T., and K. G. **Kousoulas**. Functional characterization of herpes simplex virus 1 (HSV-1) glycoprotein K (gK) involved in infectious virus production and egress. p. 17. Joint Annual Meeting of the South-Central Branch of the American Society for Microbiology and Mid-South Biochemists. Jackson, MI. Nov. 7-8, 1997.
 54. Baghian A, M. Luftig, J. B. Black, K. G. **Kousoulas**, Y-X. Meng, C-P. Pau, T. Voss, P. E. Pellett. 1998. Glycoprotein B of human herpesvirus 8 is a major component of the virion particle and is expressed on the surfaces of BCBL-1 cells. Southeastern Virology Conference. Atlanta, GA, March 19-23, 1998.
 55. Chouljenko, V. N., K. G. **Kousoulas**, X. Lin, and J. Storz. Comparative analyses of the phenotypic and the cDNA predicted amino acid sequences of respiratory and enteric bovine coronaviruses. Fifth International Symposium on Positive Strand RNA Viruses. St. Petersburg, FL, May 23-28, 1998.
 56. Foster, T., V. N. Chouljenko, and K. G. **Kousoulas**. HSV-1 glycoprotein K is involved in efficient virion entry into vero cells and CHO cells transformed with either HVEM (Vero) or HVEM (HeLa). Twenty-third International Herpesvirus Workshop. York, U.K. August 1-7, 1998.
 57. Foster, T., and K. G. **Kousoulas**. Functional domains of herpes simplex virus 1 (HSV-1) glycoprotein K (gK) involved in infectious virus production and egress. Twenty-third International Herpesvirus Workshop. York, U.K. August 1-7, 1998.
 58. Foster, T. P. and K. G. **Kousoulas**. Intracellular vesicular transport of herpes simplex virions: structure and function of glycoprotein K in virion assembly and egress. p254a.

- 38th American Society for Cell Biology Meeting, San Francisco, CA. December 12-16, 1998.
59. Foster, T. P., G. V. Rybachuk, V. N. Chouljenko, and K. G. **Kousoulas**. Lack of herpes simplex virus glycoprotein K causes differential utilization of human and monkey herpes virus receptors during virus entry. P254a. 38th American Society for Cell Biology Meeting, San Francisco, CA. December 12-16, 1998.
 60. Marquart, M.E. T. P. Foster, K. G. **Kousoulas**, X. Zheng, J. M. Loutsch, B. M. Gebhardt, and J. M. Hill. Viral latency and ocular reactivation of a recombinant HSV-1 that expresses enhanced green fluorescent protein (EGFP). 99th General Meeting of the American Society for Microbiology, Chicago, IL. May 30-June 3, 1999.
 61. Foster, T. P., G. V. Rybachuk, V. N. Chouljenko and K. G. **Kousoulas**. Herpes simplex virus type-1 glycoprotein K functions in virus entry, virion intracellular vesicular transport and egress. Twenty-fourth International Herpesvirus Workshop. July, 17-23, 1999, p. 5013.
 62. Foster, T. P., G. V. Rybachuk, and K. G. **Kousoulas**. Delineation of domains of HveA (HeLa) that mediate entry of the gK-null virus DgK. Twenty-fifth International Herpesvirus Workshop. July, 29-August 4, 2000, Portland, Oregon, abstract 2.29.
 63. Foster, T. P., and K. G. **Kousoulas**. HSV-1 glycoprotein K (gK) is expressed on cell surfaces and interferes with receptor-specific virus entry. Twenty-fifth International Herpesvirus Workshop. July, 29-August 4, 2000, Portland, Oregon, abstract 2.30.
 64. Chouljenko, V. N. and K. G. **Kousoulas**. Elucidation of the genomic nucleotide sequence of bovine coronavirus and analysis of cryptic leader-mRNA fusions sites and their role in the generation of subgenomic mRNA quasispecies. VIIIth International symposium on nidoviruses (Coronaviruses and arteriviruses). May 20-25, 2000. Lake Harmony, PA. Abstract 6.
 65. Foster, T. P., J. Melancon, and K. G. **Kousoulas**. An a-helical domain within the carboxyl terminus of herpes simplex virus type 1 (HSV-1) glycoprotein B (gB) is associated with cell fusion and resistance to heparin inhibition of cell fusion. Twenty-sixth International Herpesvirus Workshop. July, 28-August 3, 2001, Regensburg, Germany, abstract 2.05.
 66. Foster, T. P., G. Rybachuk, and K. G. **Kousoulas**. Herpes simplex virus type-1 glycoprotein K (gK) is expressed on virions and cell surfaces as fully glycosylated species and functions in virus entry and virus-induced cell fusion. Twenty-sixth International Herpesvirus Workshop. July, 28-August 3, 2001, Regensburg, Germany, abstract 2.15.
 67. Foster, T. P. and K. G. **Kousoulas**. 2003. HSV-1 gK-mediated interference for virion egress and virus-induced cell fusion is due to Golgi collapse into the endoplasmic reticulum. Twenty-Eighth International Herpesvirus Workshop. July 26-31. Madison, Wisconsin.
 68. Foster, T. P., J. Melancon, and K. G. **Kousoulas**. 2003. The Alphaherpesvirus Fuseosome: The HSV-1 UL20 protein modulates gB and gK-mediated membrane fusion. Twenty-Eighth International Herpesvirus Workshop. July 26-31. Madison, Wisconsin.
 69. Foster, T. P., J. M. Melancon, T. L. Olivier, K. G. **Kousoulas**. 2004. Interaction between HSV-1 gK and UL20 proteins is required for their intracellular trafficking, TGN localization and cytoplasmic virion morphogenesis. Twentieth-Ninth International Herpesvirus Workshop., July 25-30, Reno, Nevada.
 70. Melancon, J. M, T. P. Foster, K. G. **Kousoulas**. 2004. Genetic analysis of the HSV-1 UL20 protein domains involved in cytoplasmic virion envelopment and virus-induced cell fusion. Twentieth-Ninth International Herpesvirus Workshop. July 25-30, Reno, Nevada.

71. Luna, R. E., V. Chouljenko, O. D'Auvergne, H-C. Lee, A. Baghian, F. Zhou, S-J. Gao, K. G. **Kousoulas**. 2004. Construction and characterization of recombinant KSHV strains using the BAC36 viral genome suggest that the glycoprotein B (gB) carboxyl terminus is involved in virus-induced cell-to-cell fusion. The Seventh International Workshop on Kaposi's Sarcoma Associated Herpesvirus and Related Agents. August 21-25, University of California, Santa Cruz, California.
72. Melancon, J. M. P. A. Fulmer and K. G. **Kousoulas**. The UL20 and UL11 viral proteins function independently in herpes simplex virus type 1 (HSV-1) cytoplasmic virion envelopment. Thirtieth International Herpesvirus Workshop. July 30-August 4, 2005. Turku, Finland.
73. **Kousoulas**, K. G., A. David, A. Baghian, T. P. Foster. Herpes Simplex Virus Type-1 (HSV-1) vector improvement: Deletion of the gK gene eliminates virus spread in the eye and viral transmission to the central nervous system. Second Annual Louisiana Gene Therapy Research Consortium Symposium. May 25, 2006, Baton Rouge, LA.
74. **Kousoulas**, K. G., R. Subramanian, V. Chouljenko, O. D'Auvergne. Conditional transcriptional silencing of Kaposi's sarcoma associated herpes virus (KSHV) glycoprotein B(gB) by siRNA. Second Annual Louisiana Gene Therapy Research Consortium Symposium. May 25, 2006, Baton Rouge, LA.
75. Israyelyan, A. J. M. Melancon, T. P. Foster, C. Leuschner, L. G. Lomax and K. G. **Kousoulas**. Novel oncolytic herpesviruses for the treatment of breast tumors. Second Annual Louisiana Gene Therapy Research Consortium Symposium. May 25, 2006, Baton Rouge, LA.
76. Chouljenko, V. A. Iyer, J. M. Melancon, and K. G. **Kousoulas**. Efficient construction of HSV-1 recombinants expressing influenza virus hemagglutinins. Second Annual Louisiana Gene Therapy Research Consortium Symposium. May 25, 2006, Baton Rouge, LA.
77. Subramanian R, D'Auvergne O. and K. G. **Kousoulas**. Conditional transcriptional silencing of Kaposi's sarcoma associated herpes virus glycoprotein b by siRNA. Annual meeting of the south central branch of the American Society for Microbiology, 2006.
78. Subramanian R, D'Auvergne O. and K. G. **Kousoulas**. Conditional transcriptional silencing of Kaposi's sarcoma associated herpes virus glycoprotein B by siRNA. First Biennial National IDeA Symposium of Biomedical Excellence, Washington, DC.
79. Foster, T. P., S. Rajagopalan, M. Brown, K. G. **Kousoulas**. Domain mapping of HSV-1 gK and UL20 protein interactions. Thirty-first International Herpesvirus Workshop. July 22-28, 2006. University of Washington, Seattle, WA.
80. Subramanian, R., A. Baghian, O. D'Auvergne, H. Kong, U. Rickham, K. G. **Kousoulas**. Carboxyl-terminal truncations of the KSHV glycoprotein B, which are known to enhance virus-induced cell fusion, cause increased virion egress from BCBL-1 cells. The Tenth International Workshop on Kaposi's Sarcoma Associated herpesvirus (KSHV) and Related Agents. August 1-5, 2007. Hilton Portland & Executive Tower, Portland, OR.
81. **Kousoulas**, K. G. Herpesviruses as nanomachines for cancer treatment. Fourth International Workshop on Nanosciences & Nanotechnologies. Aristotle University of Thessaloniki, Thessaloniki, Greece.
82. David, A., A. Baghian, and K. G. **Kousoulas**. HSV-1 (McKrae) glycoprotein K is essential for ocular pathogenesis and central nervous system infection. Thirty-second Annual Workshop on Herpesviruses. July 7-12, 2007. Asheville, NC.
83. Israyelyan, A. H., J. M. Melancon, L. G. Lomax, I. Sehgal, C. Leuschner, M. T. Kearney, V. N. Chouljenko, A. Baghian, and K. G. **Kousoulas**. Effective treatment of human breast tumors in a mouse xenograft model with a syncytial HSV-1 specifying the NV1020 genomic deletion. Thirty-second Annual Workshop on Herpesviruses. July 7-12, 2007. Asheville, NC.

84. Anna H. Israyelyan, Vladimir N. Chouljenko, Nobuko Wakamatsu, Konstantin G. **Kousoulas**. Effective Treatment of Primary and Metastatic Tumors in an Aggressive Xenograft Breast Mouse Model System with the NV1020-Like Virus OncDSyn Specifying Syncytial Mutations in Glycoproteins B and K. American Society for Gene Therapy 11th Annual Meeting. May 28-June 1, 2008. Abstract #551.
85. **Kousoulas**, K. G., A. H. Israyelyan, I. Sehgal. Engineering viruses as nanomachines for cancer treatment. Fifth International Workshop on Nanosciences & Nanotechnologies. July 14-16, 2008. Aristotle University of Thessaloniki, Thessaloniki, Greece.
86. Subramanian, R., O.D. D'Auvergne, I. Sehgal, H.X. Kong, and K. G. **Kousoulas**. siRNA-mediated inhibition of the KSHV K8.1 and gB glycoprotein synthesis inhibits VEGF and vIL-6 production and tumorigenesis in mice. KSHV 12th International Workshop. September 13-16, 2009. Charleston, SC.
87. Walker, J. D. I. Sehgal, V. Chouljenko, A. Israyelyan, K. G. **Kousoulas**. Effective treatment of human tumors in a mouse model using novel NV1020-like OncSyn and OncdSyn viruses. The 34th International Herpesvirus Workshop. July 25-31, 2009. Ithaca. NY.
88. Chowdhury, S., D. Chouljenko, V.N. Chouljenko, A. Iyer, K. G. **Kousoulas**. The amino termini of HSV-1 gK and UL20p contain regulatory domains that function in cell fusion, virus spread and infectious virus production. The 34th International Herpesvirus Workshop. July 25-31, 2009. Ithaca. NY.
89. Chouljenko, D., H. C. Lee, V.N. Chouljenko, M.J. Boudreaux, K.G. **Kousoulas**. The HSV-1 gD cytoplasmic terminus and full-length gE are not essential and do not function in a redundant manner for virion egress. The 34th International Herpesvirus Workshop. July 25-31, 2009. Ithaca. NY.
90. Palem, J. R., S. V. Hsia, G. R. Bedadala, J. M. Hill, T. Ananthula, and K. G. **Kousoulas**. Liganded thyroid hormone receptor repressed HSV-1 thymidine kinase transcription in neuronal cell lines but not in non-neuronal cells. Thirty-fifth Annual Workshop on Herpesviruses. July 24-29, 2010. Salt Lake City, Utah.
91. **Kousoulas**, K. G. and V. N. Chouljenko. The gK/UL20 protein complex interacts with gB and gH and modulates cell fusion via interactions between the amino-termini of gK and gB. Thirty-fifth Annual Workshop on Herpesviruses. July 24-29, 2010. Salt Lake City, Utah.
92. Hsia, S., J. Palem, G. Bedadala, T. Ananthula, J. Hill, R. Mahmud, K. G. **Kousoulas**, V. N. Chouljenko. HSV-1 induces the expression of early growth response-1 (Egr1) to facilitate viral gene expression and replication during lytic infection. Thirty-fifth Annual Workshop on Herpesviruses. July 24-29, 2010. Salt Lake City, Utah.
93. Walker, J. D., I. Sehgal, and K. G. **Kousoulas**. Oncolytic and immunomodulatory therapy with a novel herpes simplex-1 virus armed with the ability to degrade prostaglandin E2. Thirty-fifth Annual Workshop on Herpesviruses. July 24-29, 2010. Salt Lake City, Utah.
94. Jambunathan, N, S. Chowdhury, V. N. Chouljenko, R. Subramanian, J. D. Walker, and K. G. **Kousoulas**. Site-specific proteolytic cleavage of the amino-terminal portion of HSV-1 glycoprotein K (gK) on virion particles inhibits virus entry. Thirteenth Annual International Herpesvirus Workshop. July 24-28, 2011. Gdansk, Poland.
95. David, A. T., A. S. Charles, A. Saied, V. N. Chouljenko, and K. G. **Kousoulas**. A HSV-1 (McKrae) glycoprotein K (gK)-null virus is unable to be transported in neuronal axons in either anterograde or retrograde manner. Thirteenth Annual International Herpesvirus Workshop. July 24-28, 2011. Gdansk, Poland.
96. Chouljenko, D. V., I-J Kim, V. N. Chouljenko, and K. G. **Kousoulas**. Delineation of the functional hierarchy of HSV-1 viral glycoproteins in cytoplasmic virion envelopment and

- gress. Thirth-sixth Annual International Herpesvirus Workshop. July 24-28, 2011. Gdansk, Poland.
97. Walker, J. D., I. Sehgal, and K. G. **Kousoulas**. Oncolytic HSV-1 encoding 15-PDGH mitigates immune suppression and reduces primary and metastatic breast and prostate cancer in mice. Thirth-sixth Annual International Herpesvirus Workshop. July 24-28, 2011. Gdansk, Poland.
98. David, A. T., V. N. Chouljenko, A. Saied, and K. G. **Kousoulas**. A mutant herpes simplex virus type-1 (HSV-1) McKrae lacking the glycoprotein K (gK) gene is unable to be transported in axons in either anterograde or retrograde manner. SE Regional IDeA Meeting. September 22-24, 2011. New Orleans, LA.
99. Chowdhury, S., V. N. Chouljenko, J. D. Walker, and K. G. **Kousoulas**. Role of herpes simplex virus type 1 (HSV-1) glycoprotein K (gK) and glycoprotein B (gB) in viral entry and cell to cell fusion. SE Regional IDeA Meeting. September 22-24, 2011. New Orleans, LA.
100. Walker, J., I. Sehgal, and K. G. **Kousoulas**. Modulation of tumor-derived prostaglandin E2 using a novel oncolytic vector perturbs immune suppression in breast and prostate cancer models. SE Regional IDeA Meeting. September 22-24, 2011. New Orleans, LA.

SELECTED PARTICIPATION IN SPECIAL SCIENTIFIC MEETINGS, BOARDS AND COMMITTEES:

- Automating Polymerase Chain Reaction (PCR) Technology. Focus Group. October, 1987. Cetus Corp. Emeryville, CA.
- Biotechnology: Science, Education and Commercialization. An International Symposium. University of Florida, Gainesville, Fl. December, 1989.
- International Conference on Herpetic Eye Diseases. New Orleans, LA. November, 1992.
- Fifth International Conference of Immunobiology and Prophylaxis of Human Herpesvirus Infections. October, 1991. St. Petersburg, Fl.
- First GeneLab Mini-Conference. Focus on PCR and LSU Molecular Biology. September, 1994. Baton Rouge, LA (Principal Organizer of the Conference).
- Second Annual Molecular Biology and Biotechnology Conference. February, 1996, Baton Rouge LA. (Chairman of the Organizing Committee).
- Baton Rouge Area Molecular Biology and Biotechnology Alliance. Established in 1995. Founding Member.
- Louisiana Molecular Biology and Biotechnology Development Alliance Incorporated (LAMBBDA, Inc.). Served as president 1997-1998.
- Louisiana Alliance for Biotechnology, Incorporated (<http://www.labiotech.org>). Served as president 1999-2001.
- Louisiana Technology Consortium Board. Louisiana Department of Economic Development. Member 1997-1998.
- Energex Systems, Inc (medical devices). Member of the Scientific Advisory Board, 2002-Curr.
- Qyntessa, Inc (GMP contract manufacturing-gene therapy). Consultant. 2005-2008.
- US-Antigens. Consultant. 2006-2008.
- Thevac, Inc. Advisor. 2009-2011.
- Member. International Scientific Committee. 7th, 8th, and 9th International

Conference on Nanosciences & Nanotechnologies. July, 2009, 2010, 2011, Thessaloniki, Greece.

REPRESENTATIVE INVITED LECTURES AND SEMINARS:

- An overview of herpesvirus infections. June 1985. Bay Area Herpes Help Association, Oakland, CA.
- Structure and function of HSV-1 glycoprotein B. April, 1986. Department of Public Health, University of California, Berkeley, CA.
- Molecular studies of herpes simplex virus type-1-induced cell fusion. November, 1987. Department of Veterinary Microbiology and Parasitology, School of Veterinary Medicine, Baton Rouge, LA.
- Studies on the structure and function of HSV-1 glycoprotein B. March, 1988. University of California at San Francisco. Department of Stomatology.
- Prokaryotic and eukaryotic expression systems. March, 1988. Bio-Rad Inc. Clinical Division. Hercules, CA.
- Eukaryotic expression systems. June, 1988. Syntex Research. Division of Syntex Inc. Mountain View, CA.
- Use of herpes glycoproteins for the efficient secretion of proteins. December, 1988. Chiron Inc. Emeryville CA.
- Molecular studies of herpesviruses, coronaviruses and chlamydia. December, 1989. California Department of Health and Human Services, Berkeley, CA.
- New methods in diagnostic virology. January, 1989. Bio-Rad Inc. Clinical Division. Hercules CA.
- Molecular biology of herpesvirus-induced cell fusion. August, 1989. University of Athens, Athens, Greece.
- Baculovirus-based protein expression systems. July, 1990. University of Crete, Crete, Greece.
- Gene Probes and expression systems. December, 1991. Pennington Biomedical Research Institute, Baton Rouge, LA.
- PCR-based molecular characterization of genes specified by chlamydia, coronaviruses and herpesviruses. May, 1991. Cetus Corp., Emeryville, CA.
- The Promise of molecular biology and biotechnology. October, 1991. Baton Rouge Medical Immunology Chapter.
- Herpes simplex virus type-1 induced cell fusion: Fusion proteins, fusion machines and signal transduction. Invited Speaker. July, 1993. Centers for Disease Control, Atlanta, GA.
- Novel antiviral against herpes simplex virus type-1-induced keratitis in rabbits. July, 1993. CytRx, Corp. Atlanta, GA.
- Biotechnology: Advances in the treatment and diagnosis of animal diseases. January, 1993. Agricultural Leadership Conference, LSU Agricultural Center, Baton Rouge, LA. A Central facility approach to enhance applications of molecular biology. May, 1993. LSU Agricultural Experiment Station. Baton Rouge, LA.
- Herpes simplex virus-induced cell fusion: Fusion proteins, fusion machines or signal transduction? September, 1993. Department of Biochemistry, College of Basic Sciences, Louisiana State University, Baton Rouge, LA.
- Molecular biology of the ostrich genome. Keynote Speaker. August, 1994. Eighty-third annual meeting of the Poultry Science Association. Mississippi State

- University, Starkville, Mississippi.
- Molecular biology projects of GeneLab: Sex, herpes and genetic vaccines. September, 1995. Southern University, Baton Rouge LA.
 - The role of herpes virus glycoproteins in nuclear envelopment and cellular egress. October, 1995. Aristotelean University of Thessaloniki Medical School, Thessaloniki, Greece.
 - Molecular genetics and function of herpes simplex virus type-1 glycoproteins. November, 1995. Louisiana State University Medical School. New Orleans, LA.
 - The role of HSV-1 gK in virus entry and egress. April, 1996. University of California at San Francisco, San Francisco, CA.
 - The Biotechnology Century: Strengthening Molecular Biology and Biotechnology through LAMBBDA. Aesculapian Lecture. April, 1997.
 - Genetics and functions of HSV-1 glycoproteins gK and gB in virus entry and egress. May, 1997. Stanford Medical School, Stanford, CA.
 - Molecular biology of human Kaposi's sarcoma-associated herpesvirus: Structure and function of viral glycoproteins. New Orleans Area Virology Association (NOAVA). May 5, 1998.
 - Genetics and functions of herpes simplex virus glycoproteins. Department of Microbiology and Immunology, University of Arkansas Medical College, Little Rock, Arkansas. April, 17-18, 1999.
 - Molecular Basis for the Evolution of Respiratory Bovine Coronavirus Quasispecies Associated with the 1997-8 Texas Shipping Fever Epizootics. Texas Agricultural and Mechanical University, College of Veterinary Medicine, College Station, TX. November 9, 1999.
 - Molecular determinants of herpes simplex virus type-1 infectivity. Texas Agricultural and Mechanical University, College of Veterinary Medicine, College Station TX. November 10, 1999.
 - Genetic characterization of emerging respiratory bovine coronaviruses. Oklahoma State University, College of Veterinary Medicine. Stillwater, OK. September 21, 2000.
 - Kaposi's sarcoma herpesvirus (KSHV) infectivity and spread. University of Oklahoma, Department of Microbiology and Immunology. September 22, 2000.
 - Genetics and functions of herpes simplex virus glycoproteins in virus entry, intracellular transport and egress. Louisiana State University, Medical School, New Orleans, LA. November 27, 2000.
 - Characterization of emerging respiratory bovine coronaviruses associated with acute respiratory disease and pneumonia. University of Georgia, Athens GA. May 15, 2001.
 - Determinants of Kaposi's sarcoma associated herpesvirus pathogenicity. The Robert Koch Institute, Free University of Berlin, Berlin Germany. July 22, 2001.
 - Molecular genetics, structures and functions of herpes virus glycoproteins. Institute Pasteur, Athens, Greece, July 15, 2001.
 - Molecular Topography of functional domains coded by herpes simplex virus type –1 glycoproteins. North Carolina State University, Raleigh North Carolina, February 15, 2002.
 - The SARS epidemic: Understanding coronaviruses. Aristotelian University School of Medicine, Thessaloniki, Greece, June 2003.
 - The alphaherpesvirus fuseome: Functional Implications for virion morphogenesis and egress. Institute Pasteur, Athens, Greece, September 12, 2004.
 - Genetics and functions of herpes simplex virus membrane proteins in virus-

- associated membrane fusion events. Tulane Medical School, November 5, 2004.
- Novel oncolytic and fusogenic herpesviruses for the treatment of breast tumors. Second Annual Louisiana Gene Therapy Consortium Symposium, Manship Theatre, Baton Rouge, LA, May 25, 2006.
 - Viruses as nanomachines for cancer treatment. University of Thessaloniki, Greece July, 2007.
 - Herpes and vesicular stomatitis viral vectors for cancer treatment and vaccine development. Arizona State University, Tempe, AZ. September, 2007.
 - The alphaherpesvirus fusion machine. Cummings School of Veterinary Medicine at Tufts, Grafton, MA. December, 2007.
 - A new genetic vaccine for West Nile Virus. Louisiana Vaccine Center and South Louisiana Institute for Infectious Diseases Seminar Series. Louisiana State University Health Sciences Center, New Orleans, LA. June 12, 2008.
 - The herpes simplex fusion machine and oncolytic virotherapy. University of Texas San Antonio. Departments of Microbiology & Immunology and Pediatrics. San Antonio, TX. June 26, 2008.
 - Revisiting the “social behavior of cells”: Mechanism of gK/UL20p modulation of HSV-1-virus-induced cell fusion. Scientific Symposium for Dr. Bernard Roizman. University of Chicago, Chicago, IL. May 29-30, 2009.
 - Essential elements of stewardship and leadership in the pursuit of veterinary medical research excellence. Texas A&M, College Station, TX. June 15, 2009.
 - Engineering Viruses as Nanomachines for Cancer Treatment. Sixth International Conference on Nanosciences and Nanotechnologies. University of Thessaloniki, Greece. July 12-17, 2009.
 - Immunomodulatory and oncolytic virotherapy for breast and prostate cancers. Seventh International Conference on Nanosciences and Nanotechnologies. University of Thessaloniki, Greece. July, 2010.
 - Molecular genetics and functions of herpes simplex and Kaposi's sarcoma associated herpesvirus. Departments of Pediatrics and Microbiology & Immunology, University of Texas, San Antonio, TX. May, 2011.

PATENTS AND PATENT APPLICATIONS:

- Kousoulas, Konstantin G; Satterlee, Daniel G.; Fioretti, William C. Heterologous protein comprising avian alpha-subunit inhibin protein and methods of producing same. United States Patent 5,786,179. Issued on July 28, 1998
- Fioretti, William C; Kousoulas, Konstantin G.; Satterlee, Daniel G. Fusion gene products encoding avian alpha subunit inhibin protein, or an immunogenic fragment thereof, and a carrier protein. United States Patent 5,747,659. Issued on May 5, 1998.
- Fioretti, William C; Kousoulas, Konstantin G; Satterlee, Daniel G. Methods of enhancing production performance of birds comprising administration of heterologous protein comprising avian alpha-subunit inhibin protein. United States Patent 5,725,858. Issued on March 10, 1998.
- Emanuele, Martin R.; Newman, M.; Kousoulas, Konstantin G.; Allaudeen Haeedsulthan, S. Therapeutic delivery compositions and methods of use thereof. Issued on August 23, 2005. United States Patent 6,933,286.
- Emanuele, Martin R., Kousoulas, Konstantin G., Allaudeen, S, H. Therapeutic

- delivery compositions and methods of use thereof. April 10, 2007. U.S. Patent Number: 7,202,225
- Kousoulas, Konstantin G.; Chouljenko, Vladimir N.; Baghian, Abolgasem; Tully, Thomas N., Jr. Vaccines for Chlamydia psittaci infections. Unites States Patent 6,605,287. Issued on August 12, 2003.
 - Kousoulas, Konstantin G.; Chouljenko, Vladimir N.; Baghian, Abolgasem; Tully, Thomas N., Jr. Vaccines for Chlamydia psittaci infections. Unites States Patent 7,279,171. Issued on October 9, 2007.
 - Kousoulas, Konstantin, G. Synthetic herpes simplex viruses type-1 for treatment of cancers. Patent application US 2010/0297085, Nov. 25, 2010.
 - Kousoulas, Konstantin, G., Walker, J. D. Synthetic herpes simplex viruses for treatment of cancers. Patent application. WO 2011/119925, Sept. 11, 2011.
 - Kousoulas, Konstantin. G. Herpes simplex prophylactic and therapeutic vaccine. Patent application serial number_61/563,916, Nov. 28, 2011.

AWARDS:

FELLOWSHIP PROGRAM AWARDS:

- Fellow of the American Cancer Society. 1982-1983. Viral and Rickettsial Disease Laboratory, California Department of Health Services, (R. W. Emmons, Chief) Berkeley, CA.
- Postdoctoral Fellow, U.S. Public Health Service Training Program in Sexually Transmitted Diseases. 1983-1986. Department of Laboratory Medicine, University of California, San Francisco, CA.

SCHOLASTIC, RESEARCH AND OTHER AWARDS:

- Certificate of Appreciation for Excellence in Mentoring. Southern University, Baton Rouge, LA. April, 2008.
- Rainmaker. Louisiana State University, Baton Rouge LA. 2008, 2010.
- The Mary Louise Martin Professorship in Veterinary Medicine. 2004-2011.
- The Paula and Milton Shepard Professorship in Veterinary Medicine. 2000-2004.
- Distinguished Faculty Scholar Award. School of Veterinary Medicine. Louisiana State University. 1999.
- LSU Distinguished Faculty Award (*for teaching excellence campus-wide*). Louisiana State University. 1999.
- Certificate of Appreciation for Meritorious Service and Dedication. Louisiana State University, Council on Research. 1999.
- Aesculapian Lecturer. School of Veterinary Medicine, Louisiana State University. 1997.
- Honors Program, Fairleigh Dickinson University; Phi Zeta Kappa (1972-1975).
- Phi Omega Epsilon; Magna Cum Laude (B.S. in Physics). 1974-1975.
- Beecham Award for Excellence in Research, School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA. 1990.
- Phi Zeta Honor Society of Veterinary Medicine. Louisiana State University. 1991-2004.

• **SELECTED CURRENT AND OTHER GRANTS (last 10 years):**

- NIH:NCRR P20 RR020159-06. Centers for Biomedical Research Excellence (COBRE). LSU Center for Experimental Infectious Disease Research. \$11,000,000-total costs. 05/01/2009 – 04/30/2014. Principal Investigator (50%-time).
- NIH NCRR. Klei. T. R. (PI). Louisiana Biomedical Research Network (LBRN). Approx. \$17,000,000-total costs. 09/25/2001–4/30/2015. Dr. Kousoulas is Director of the Molecular and Cellular Biology Core and Mentor of Junior investigators (20%-time).
- NIH NIAID R0143000. Genetics and functions of HSV-1 membrane fusion proteins. \$1, 650,000-total costs. 06/01/05-05/31/12. Principal Investigator (25%-time).
- Louisiana Board of Regents:Governor's Biotech. Initiative, Program Project: 07/01/08-06/30/12. \$130,000-direct costs-per year. Program Project Title: New cancer treatment modalities. Principal Investigator. This is a program grant renewed on a yearly basis.
- Louisiana Cancer Research Consortium. Inhibition of arginase I in vivo induces a therapeutic anti-tumor immune response. \$100,000-total direct costs 11/1/2007-10/31/2009. Principal Investigator.
- Louisiana Gene Therapy Consortium. Novel oncolytic herpesviruses for cancer treatment. \$100,000-total direct costs 1/1/2008-6/30/2009. Principal Investigator.
- NIH NCRR 1 P20 RR020159-01. Centers for Biomedical Research Excellence (COBRE). LSU Center for Experimental Infectious Disease Research. \$9,960,000-total costs. 08/01/04-07/31/09. Principal Investigator.
- NIH NCRR. Silverman, H. (PI). Louisiana Biomedical Research Network (LBRN).Approx. \$17,000,000-total costs. 07/01/05-06/30/10. Dr. Kousoulas is Director of the Molecular and Cellular Biology Core and Mentor of Junior investigators (20%-time).
- NIH:NCRR 1T32RR021309-01. Research Training in Experimental Medicine and Pathology. \$1,600,000-total costs. 09/22/2005-08/31/2010. Co-investigator and mentor of a postdoctoral Fellow (Dr. Andrew David).
- Louisiana Board of Regents:Governor's Biotech. Initiative, Faculty Development Program: 10/24/02-Curr. \$130,000 per year. (Co-Investigator). This is a program grant renewed on a yearly basis.
- NIH:NCRR. 2P51RR000164-42. Tulane National Primate Research Center. Viral Diagnostics Core: Subcontract to K. G. Kousoulas (P. Whelton, PI). 05/01/03-06/30/08. \$110,000-direct costs.
- NIH:NCRR. 2P51RR000164-42. Tulane National Primate Research Center. VSV Vaccine Vectors for macaque infections and disease. Subcontract to K. G. Kousoulas (P. Whelton, PI) 05/01/03-06/30/08. \$300,000-direct costs.
- LSU Agricultural Center. Recombinant adenovirus vaccines against bovine coronavirus infections of cattle. 03/01/2006-02/28/2008. \$40,000-direct costs. K. G. Kousoulas (PI).
- NIH:NIAID. RO1AI4300. Genetics and functions of herpes simplex virus glycoprotein K in virus entry and cellular egress. \$1,038,463-direct costs. 6/1/99-5/31/05. Principal Investigator.
- NIH:NIAID. RO1AI4300. Supplement. \$103,362-direct costs. 11/1/99-5/31/05. Principal Investigator.
- USDA NRICGP. Determinants of bovine coronavirus pathogenicity. \$227,000-total costs. 1/1/2002-10/30/2005. Principal Investigator.
- Louisiana Board of Regents: Cross Sectional Study for the Description of West Nile

- Virus in Louisiana. 7/2002-6/30/2004. \$154,000-total costs. Co-Investigator.
- USDA NRICGP. Molecular characterization of emerging bovine respiratory coronaviruses.
 - \$182,500-total costs. 10/1/98-6/30/02. Principal Investigator. Baton Rouge General Hospital System. Evaluation of mRNA tumor markers for the accurate detection of micrometastatic tumors. \$80,000-total costs. 7/1/2001-6/30-2003.
 - Louisiana Board of Regents: Microarray equipment for the LSU/LSU Agricultural Center Centralized Facility GeneLab. \$150,000. 7/1/2001-6/30/2002. Principal Investigator.
 - United States Department of Justice. Molecular diagnostics for biological defense pathogens. \$322,736-direct costs. 10/1/99-6/30/2002. Internal Subcontract from a \$3,200,000 grant (D. Walsh, D. Huxsoll, Principal Investigators).
 - GSK Corporation, North Carolina. Molecular studies on herpes antivirals. 11/1/01-10/30/02. \$20,000-direct costs.
 - Cooperative Research and Development Agreement (CRADA). Centers for Disease Control and Prevention and Biokit International Inc. 7/1/99-6/30/02. \$15,000-direct costs.
 - USDA. Respiratory disease caused by bovine coronaviruses. \$95,000-total costs. 8/1/98-7/31/00. Co-Principal Investigator (J. Storz, PI).
 - Louisiana Educational Quality Support Fund (Enhancement Program). Enhancement of Molecular Biology Capabilities of the Centralized Facility "GeneLab". 7/1/98-6/30/99. \$137,700-direct costs. Principal Investigator.
 - Louisiana Educational Quality Support Fund (Industrial Ties Program): Development of Gene-Based Methods for the Induction of Immune Responses in Mice: 7/1/97-6/31/00. \$ 108,500-total costs. Principal Investigator.
 - Louisiana Educational Quality Support Fund (Industrial Ties Program). Potential Use of Chlamydial 18kDa Adhesion Protein and Major Outer Membrane Protein (MOMP) as Vaccines. 7/1/96-6/31/00. \$125,000-total costs. Co-Principal Investigator.

THESES/DISSERTATIONS DIRECTED: 11 PhD, 5 MS

MAJOR AREAS OF RESEARCH:

My primary research interests are focused on the molecular biology and pathogenesis of herpes simplex viruses (HSV) and human herpesvirus 8 (HHV-8) or Kaposi's Sarcoma Associated Herpesvirus (KSHV). Specifically, I seek to define the molecular mechanisms that control attachment and penetration of these viruses into susceptible cells (including cells of neuronal origin for HSV), their ability to replicate and spread from cell to cell, and the role of membrane fusion events in intracellular virion transport and egress. Our experimental approach utilizes advanced molecular biology, molecular genetics and cell biology. Briefly, mutant herpesviruses deficient in a particular function are isolated through generalized mutagenesis, site-specific mutagenesis of viral genomes cloned into bacterial artificial chromosomes (BAC). These engineered viruses are studied to learn about the role of specific virus encoded proteins in host cell attachment, penetration, virus induced cell fusion virion assembly and egress. To analyze the role of specific viral genes in virus penetration and virus-induced cell fusion these genes are expressed in transient, eukaryotic expression systems and the expressed proteins are detected using specific monoclonal antibodies produced in my laboratory. In addition, monoclonal and

monospecific sera against viral proteins are utilized to locate their target proteins in infected cells using confocal and immunoelectron microscopy and to analyze their structure and function. A major finding from our studies has implicated multiple protein-protein interactions among viral membrane proteins of both HSV-1 and KSHV in regulation of virus-induced membrane fusion phenomena. Similarly, multiple interactions among membrane proteins and tegument proteins have been found to regulate cytoplasmic virion envelopment.

A second major recent interest of my laboratory is the use of viral vectors for gene and cancer therapy and vaccine purposes. Currently funded projects include the generation of oncolytic recombinant herpes simplex virus vectors to combat breast cancer (Louisiana Board of Regents and Louisiana Gene Therapy and Cancer Consortia). These viruses are tested in xenograft mouse models using human breast cancer cells. A significant effort is focused on the production of vaccines for West Nile virus, herpes B virus and Simian Retrovirus using vesicular stomatitis virus (VSV) and adenovirus-based vectors. This work is carried out in collaboration with the Tulane National Research Primate Center (funded by the NIH base grant to TNPRC).

A third interest of my laboratory is the molecular biology and pathogenesis of human and bovine coronaviruses. We have derived and compared the entire genomic nucleotide sequence of several respiratory and enteric bovine coronaviruses and identified specific nucleotide changes, which may be associated with virus tropism. We are particularly interested in the structure and function of the viral spike glycoproteins encoded by the SARS coronavirus and respiratory bovine coronaviruses, which are known to promote virus entry into susceptible cells and virus-induced membrane fusion phenomena.

Other interests include: the application of DNA based methods for the diagnosis of infectious disease pathogens and genetic diseases of humans and animals, biophysical and genetic approaches to analyze the structure and function of proteins, and the utilization of computers for biological research and teaching.

TEACHING PHILOSOPHY:

We live in an era that demands change in the way teaching of molecular biology, biotechnology and related disciplines is performed for undergraduate, medical and veterinary and graduate level courses. The rapid growth of molecular biological knowledge is itself a powerful force for change. Biotechnology is heavily dependent on molecular biology and genetic principles as well as increasingly focusing on concepts that cut across scientific fields including chemistry, physics, mathematics and information science. I believe that classroom and laboratory instruction need to adapt to these changing times by emphasizing flexibility, critical thinking and problem solving in an interactive and friendly environment that places students and faculty as partners working side-by-side in learning endeavors.

ADMINISTRATIVE PHILOSOPHY:

My administrative philosophy is focused on the pursuit of excellence in research, teaching and service functions of academic personnel. I firmly believe that strategic planning, engagement and empowerment of faculty, staff and students, and delegation of duties are key elements to succeed as an academic unit. In addition, it is very important to create an environment of meritocracy, transparency and fairness, while pursuing vigorous

and entrepreneurial developmental plans.

SERVICE:

CREATIVE SERVICE ACTIVITIES:

- Vice President of the National Association of IDeA Principal Investigator (NAIPI), Incorporated (not-for-profit). This organization represents all EPSCoR/IDeA states (23 states and Puerto Rico).
- NIH. SCORE Program. Southern University, Baton Rouge, LA. Member of the External Advisory Committee.
- Serves as member of the Steering Committee of the NIH IDeA Network for Biomedical Research Excellence (INBRE) and Director of the Molecular and Cell Biology Core. This project grant, which is funded by NIH NCCR for five years, links LSU Baton Rouge with a number of other Louisiana-based Institutions, and focuses on the training of students, faculty and staff in molecular biology, bioinformatics, instrumentation and other related disciplines.
- Served as member of the Steering Committee of the Louisiana Biomedical Research Network (BRIN). This project grant, which was funded by NIH NCCR for five years is the predecessor to the above mentioned INBRE program grant.
- Served as NIH mentor for a KO1 physician training grant to Dr. Carmen Colitz, an assistant professor of Veterinary Ophthalmology.
- Established a Molecular Medicine Seminar Series typically attended by both clinical and basic scientists in which each faculty presents his/her research program and receives comments in an informal setting.
- Established the Gene Probes and Expression Systems Laboratory "GeneLab", located in the Department of Veterinary Microbiology and Parasitology. This laboratory is uniquely supported by the School of Veterinary Medicine, College of Basic Sciences, The LSU Agricultural Center, and the Pennington Biomedical Research Center, and serves as a support and resource facility for research in molecular and cellular biology. The goals of GeneLab are: To develop and provide research expertise and tools to LSU scientists, and to train veterinary and graduate students, faculty and staff in the effective use of new molecular technologies.
- Established and directs the Division of Biotechnology and Molecular Medicine (BIOMMED; [http://: BIOMMED.LSU.EDU](http://BIOMMED.LSU.EDU)) at the LSU School of Veterinary Medicine as a research and development unit to assist faculty within the School of Veterinary Medicine and LSU in their research and development efforts.
- Spearheads efforts to develop a Center for Comparative Medicine at LSU with participation from multiple Colleges and LSU affiliated institutions.
- Member of the National Institutes of Health Research Centers in Minority Institutions (RCMI) Advisory Committee for Project Grant "Center for Cellular and Molecular Biology" Southern University, Baton Rouge, LA. 10/1/93-9/30/98. Total award: \$4,800,000.

PROFESSIONAL MEMBERSHIPS:

- Member of the American Association for the Advancement of Sciences (AAAS)
- Member of the American Society for Virology (ASV)
- Member of the American Society for Microbiology (ASM)
- Member of the American Society for Gene Therapy (ASGT)

FACULTY COMMITTEES:

- Member, Committee on Interdisciplinary and Interdepartmental Programs. Faculty Senate.
- Louisiana State University, Baton Rouge, LA. 2008.
- Chair, Faculty Search Committee, Department of Pathobiological Sciences, LSU School of Veterinary Medicine. 2006-2008.
- Member of the Promotion and Tenure Committee of the LSU School of Veterinary Medicine 2000-2007.
- Member of the Graduate Program Committee, Department of Pathobiological Sciences, 2001-2007.
- Member of the Graduate Program Committee, Department of Veterinary Microbiology and Parasitology. 1989-1992, 1999, 2000, 2003-2004.
- Member of the LSU Research Council (Campus-Wide), LSU Baton Rouge. 1993-1998.
- Member of the LSU Advisory Committee on Biological Sciences for the Office of the Vice Chancellor for Research and Economic Development (LSU Baton Rouge). 1993-1998.
- Member of Research Centers in Minority Institutions (RCMI) Advisory Committee. Center for Cellular and Molecular Biology. Southern University, Baton Rouge, LA. 1993-1997.
- Member of the Pennington Biomedical Research Center Interdepartmental Nutrition Coordinating Committee (LSU). 1991-1999.
- Chairman of the Institutional Biological and Recombinant DNA Biosafety Committee (LSU, LSU Agricultural Center, Pennington Biomedical Research Center, Hansen's Disease Center). 1995-1998.
- Chairman, School of Veterinary Medicine Research Committee. 1989-1992, 2005-2007.
- Member of the Graduate Academic Studies Council Committee. 1990-1992, 1999-current.

AFFILIATIONS WITH OTHER ACADEMIC DEPARTMENTS LSU PROGRAMS:

- Adjunct Professor, Department of Biological Sciences, Southern University, Baton Rouge, LA. 2008-Curr.
- Adjunct Professor, Department of Microbiology & Immunology, Health Sciences Center, Louisiana State University, New Orleans, LA. 2007-Curr.
- Adjunct Professor, Gene Therapy Program, Health Sciences Center, Louisiana State University, New Orleans, LA. 2007-Curr.
- Adjunct Professor, Stanley S. Scott Cancer Center, Health Sciences Center,

- Louisiana State University, New Orleans, LA. 2007-Curr.
- Department of Veterinary Science, Louisiana Agricultural Experiment Station, Louisiana Agricultural Center, Baton Rouge, LA. Professor of Virology and Biotechnology. 4%-time. 1998-Curr.
- Department of Poultry Science, LSU Agricultural Experiment Station, Baton Rouge, LA. Professor of Virology and Biotechnology. 5%-time. 1995-1998.
- Department of Biological Sciences, School of Basic Sciences, Louisiana State University, Baton Rouge, LA. Adjunct Professor. 1990-Current. Reviewed and re-appointed in 2004. Louisiana State University, School of Basic Sciences, Baton Rouge, LA.
- Member of the Interdisciplinary Graduate Program in Genetics. 1990-Current.
- Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, LA. Adjunct Professor. 1995-Curr.
- Tulane Regional Primate Research Center, Covington, LA. Affiliated Scientist (2002-Curr.), and Member of the Scientific Advisory Board (2002-Curr).

PEER REVIEW ACTIVITIES:

- Chair NIH:NCRR special emphasis panel, January 10, 2012.
- Chair, NIH:NCRR special emphasis panel, March, 2011.
- Panel Member: NIH:NCRR COBRE special emphasis panel, September 29, 2009.
- Panel Chair: Special Emphasis Panel. NIH:NCRR. February 25, 2009.
- Panel Member:Special NIH panel for the site-visit and review of the Southwest National Primate Research Center. San Antonio, TX. 2008
- Panel Member, NIH: NCI. NIH panel for support for conferences and scientific meetings. 2008, 2009, 2010, 2011
- Panel Member, Centers for Disease Control and Prevention. Special emphasis panel: Feasibility study of using cancer registries and other data to track measures of care in colorectal and breast cancer. May, 2008.
- Panel Chair, NIH:NIAID. Management of information resources on therapeutic agents for HIV and opportunistic infections. 2007.
- Panel Member, NIH:NCRR Panel. Scientific and Technical Review Board on Biomedical and Behavioral Research Facilities. 2006-2011.
- Panel Chair, Special Emphasis Panels (2), Comparative Medicine, National Center for Research Resources, 2005-2007.
- Panel Member. Scientific and Technical Review Board on Biomedical and Behavioral Research Facilities. 2005.
- Panel Member of the Comparative Medicine Panel of the National Institutes of Health, National Center for Research Resources, 2000-2004.
- Panel Member of the USDA National Research Initiative Competitive Research Program (Virology Study Section, 2006, 2005, 2004, 1999, 1996, 1995).
- Panel Member of the Site-Review NIH Panel for the Florida A&M Research Center in Minority Institutions. 2002
- Panel Member of the Site-Review Special NIH Panel for the Yerkes Primate Research Center. Emory University. 2000.
- Panel Member of the Site-Review Special NIH Panel for the University of Washington Primate Center. Seattle, WA. 2002.

- *Ad hoc* reviewer for USDA Small Business Administration Program.
- *Ad hoc* reviewer for USDA animal molecular biology competitive grant program.
- *Ad hoc* reviewer for the Morris Animal Foundation.
- *Ad hoc* reviewer for the Natural Sciences and Engineering Research Council of Canada.
- Panelist. Greek Ministry of Education. Biological Sciences. 1997, 2001-2006
- Panelist. Greek Ministry of Research and Technology. 1998.
- *Ad hoc* reviewer for Journal of Virology 1998-2011.
- *Ad hoc* reviewer for Virology (1998-2011).
- *Ad hoc* reviewer for the Journal of Pathology (2003-2011).
- *Ad hoc* reviewer for the Journal of General Virology (2000-2010).
- *Ad hoc* reviewer for Lancet (2002-2009).