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***EDUCATION***

1980-1984                      A.B., Biology; A.B., Art  
Middlebury College, Middlebury, VT

1984-1991                      Ph.D., Molecular Biology (Dept. of Molecular Genetics and Biochemistry)  
Laboratory of Dr. Patricia A. Hoffee, Ph.D.  
University of Pittsburgh School of Medicine, Pittsburgh, PA

***PROFESSIONAL EXPERIENCE***

5/2000 - present              Assistant Professor, *secondary appointment*  
Department of Molecular Virology, Immunology, and Medical Genetics  
The Ohio State University, Columbus, OH

6/1999 - present              Assistant Professor  
Department of Pediatrics, Division of Molecular Medicine  
The Ohio State University, Columbus, OH

6/1999 - present              Research Scientist  
Department of Molecular Medicine, Children's Research Institute  
Children's Hospital, Columbus, OH

1/1996 - 5/1999              Research Assistant Professor  
Pulmonary and Cystic Fibrosis Research Center, Department of Medicine,  
University of North Carolina, Chapel Hill, NC

1/1996 - 5/1999              Research Assistant Professor  
Gene Therapy Center  
University of North Carolina, Chapel Hill, NC

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***PROFESSIONAL EXPERIENCE - Continued***

7/1993 - 12/1995              Senior Research Associate  
Laboratory of Dr. R. Jude Samulski, Ph.D.

Gene Therapy Center, UNC, Chapel Hill, NC

8/1991 - 7/1993                      Postdoctoral Research Fellow  
Laboratory of Dr. Mary Sue Coleman, Ph.D.  
Department of Biochemistry and Biophysics, UNC, Chapel Hill, NC

1984-1991                              Graduate Student Assistant  
Laboratory of Dr. Patricia A. Hoffee, Ph.D.  
University of Pittsburgh, Pittsburgh, PA

### ***ACADEMIC AND PROFESSIONAL HONORS***

American Society of Gene Therapy (ASGT), Young Investigator Award, 1998.  
Cystic Fibrosis Foundation, Research and Travel Award, 1994.  
Who's Who's in Science and Technology Award, 1994.  
NIH Postdoctoral Research Award, 1991-1993.  
Department of Molecular Genetics and Biochemistry, Teaching Award, 1986-1991.  
Medical Microbiology Teaching Award, 1990.  
NCI Graduate Training Fellowship, 1985-1986.  
University of Pittsburgh, Dean's Award, 1984-1985.  
Highest Honors, Department of Biology, Middlebury College, 1984.

### ***PROFESSIONAL ACTIVITIES AND SOCIETIES***

Expert Panelist, CDC Molecular Genetic Testing Initiative, 1998 – 1999.  
Member, American Society of Gene Therapy, 1997 - present.  
Evaluator, Current Drugs Ltd., Investigational Drugs Database, *Gene Therapy*, 1997 - present.  
Carolina Speakers Bureau, Distinguished Speaker, 1997 - 1999.  
European Working Group on Gene Transfer and Gene Therapy (EWGT), 1993 - present  
Member, Mammalian Genome Society, 1991 - 1993.  
Member, American Society for Microbiology, 1983 - present.  
Member, American Association for the Advancement of Science, 1986 - present.  
Advisor for Undergraduate Research in Biology Program, UNC, 1991 - 1999.  
Advisor for Minority Undergraduate Research Apprentices Program, UNC, 1991 - 1993.

### ***EDITORIAL ACTIVITIES***

*Ad hoc* reviewer for J. Pharmaceutical Sciences, 1995 - present.  
*Ad hoc* reviewer for Human Gene Therapy, 1997 - present.  
*Ad hoc* reviewer for J. Virology, 1995 - present.  
*Ad hoc* reviewer for Nature Biotechnology, 1998 - present.  
*Ad hoc* reviewer for Molecular Therapy, 1999 - present.  
*Ad hoc* reviewer for BioTechniques, 1991 - present.  
*Ad hoc* reviewer for Gene Therapy, 1997 - present.  
*Ad hoc* reviewer for Cystic Fibrosis Foundation, 1995 - present.

## **INVITED SEMINARS**

Keystone Symposia, Keystone, CO, May 1988.  
Applied Genetics Co., Melbourne, FL, April 1991  
University of North Carolina at Chapel Hill, School of Medicine, April 1991.  
Case Western Reserve University, Department of Medicine, May 1991.  
University of Pittsburgh, Department of Molecular Genetics and Biochemistry, July 1991.  
University of North Carolina, APPLES Program, Department of Biology, July 1992.  
Alamance County Hospital, Area Health Education Centers Program, June 1994.  
Ribozyme Pharmaceuticals Inc., Boulder, CO, August 1994.  
Genzyme Corp., Gene Transfer Research Division, Framingham, MA, February 1995.  
University of North Carolina, Department of Pulmonary Medicine, May 1995.  
NIH/NIDDK, Laboratory of Cellular Biology, Bethesda MD, May 1995.  
Baxter Healthcare Inc., Gene Therapy, Round Lake, IL, May 1995.  
Medical Enzymes Ltd., Columbia, SC, August 1995.  
NC Baptist Hosp., Bowman Grey School of Med., Dept. of Cancer Biology, March 1996.  
AASTROM Biosciences, Ann Arbor, MI., May 1997.  
CFF, Williamsburg Conference, *CF Gene Therapy*, Williamsburg, VA, June 1997.  
Triangle Virology Society, Chapel Hill, NC, July 1997.  
Medical University of South Carolina, Charleston, SC, August 1997.  
CFF, *North American Cystic Fibrosis Conference*, Nashville, TN, October 1997.  
Wayne County Pharmaceutical Society, Goldsboro, NC, November 1997.  
Chapel Hill High School, Humanities Festival, Chapel Hill, NC, April 1998.  
North Carolina School of Math and Sciences, Durham, NC, May 1998.  
The Jackson Laboratory, Bar Harbor, ME, July 1998  
Children's Hospital, Ohio State University, Columbus, OH, August 1998.  
The University of Calgary Faculty of Medicine, Calgary, Alberta, Canada, September 1998.  
Shared Learning Association, Chapel Hill, NC, September 1998.  
Musculoskeletal Disease Center, Jerry L. Pettis VAMC and Loma Linda Univ., CA, Sept. 1998.  
The University of Florida, Center for Gene Therapy, Gainesville, FL, Oct. 1998.  
Peer Learning Association, Chapel Hill, NC, December 1998.  
The University of Florida, School of Pharmacy, Gainesville, FL, February 1999.  
Cold Spring Harbor Laboratory, *Vector Targeting Meeting (session chair)*, March 1999.  
The Mayo Clinic, Program in Molecular Medicine, Rochester, MN, March 1999.  
Keystone Symposia, *Gene Therapy: The Next Millennium*, January 2000.  
OSU, Dept. of Molecular Virology, Immunology, and Medical Genetics, Columbus, May 2000.  
Pediatric Academic Societies & American Academy of Pediatrics, Joint Meeting, Boston, May 2000.  
American Society for Gene Therapy, Annual Meeting, Denver, CO, June 2000.

## **PLENARY LECTURES**

- European Working Group for Gene Therapy, *First International Meeting of The European Working Group For Gene Transfer and Gene Therapy*, Keynote Speaker. Baveno, Italy, November 1993.
- Weizmann Institute of Science and Baxter Healthcare, *International Meeting on Immunotherapy and Gene Therapy of Cancer*, Plenary Speaker. Kibbutz Ein Gedi, Israel, February 1994.

- NIH, NHLBI, *Gene Therapy Strategies for Treatment of Cooley's Anemia*, Bethesda, MD., September 1994.
- East Carolina State University, *Gene Therapy Symposium*, Keynote Speaker. Greenville, NC., April 1995.
- Cold Spring Harbor Laboratory, *Vector Targeting Strategies for Therapeutic Gene Delivery*, Plenary Speaker and Session Chair. CSHL, NY, March 1997.

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### ***PLENARY LECTURES - (Continued)***

- NMHCC Bio/Technology Division, *Viral and Non-Viral Mediated Gene Delivery Conference*, San Diego, CA, April 1998.
- American Society for Gene Therapy (ASGT), *ASGT Annual Meeting*, Plenary Speaker. Seattle, WA, May 1998.

### ***TEACHING ACTIVITIES***

Undergraduate Directed Research (University of North Carolina at Chapel Hill, Department of Biology):

Carol A. Brown (1991-1993)  
Sally A. Gowen (1993-1996)  
Rose Wilcher (1996-1998)

Graduate Directed Research (University of North Carolina at Chapel Hill, Department of Pharmacology)

Candace M. Summerford (1995-1999; Ph.D., 1999) (Co-Advisor, Dr. R.J. Samulski)

Teaching Experience:

- MICRO 211, Advanced Topics in Virology, Seminar and Tutorial; Viral Vectors and Gene Therapy, UNC Chapel Hill, 1998.
- Undergraduate Directed Research, UNC Chapel Hill, 1991-1999.
- Patient Oriented Problem Solving (POPS), Lecturer, University of Pittsburgh School of Medicine, Winter Semesters, 1989 - 1992
- Microbiology and Immunology, Lecturer and Laboratory Instructor, University of Pittsburgh School of Medicine, Winters 1985-1991.
- Applied Bacteriology Laboratory, Middlebury College, 1983-1984.
- Bacterial Genetics Laboratory, Middlebury College, 1983.

### ***PUBLICATIONS - Journal Articles and Book Chapters***

**Bartlett, J.S.**, Wilcher, R. and R.J. Samulski. Infectious Entry Pathway of Adeno-Associated Virus and Adeno-Associated Virus Vectors. *J. Virol.* 74(6): pp- pp. 2000.

Summerford, C.M., **Bartlett, J.S.** and Samulski, R.J. Adeno-Associated Virus: Basic Biology and Vector Applications. In: R. Bertolotti, ed., *Gene Therapy and Regulation*. VSP, Zeist, The Netherlands. 1999.

**Bartlett, J.S.** Prospects for the Development of Targeted Adeno-Associated Virus (AAV) Vector Systems. *Tumor Targeting*. 4: 143-149. 1999.

**Bartlett, J.S.**, Kleinschmidt, J., Boucher, R.C., and Samulski, R.J. Targeted Adeno-Associated Virus (AAV) Vector Transduction of Non-permissive Cells Mediated by Bispecific F(ab')<sub>2</sub> Antibody. *Nature Biotech.* 17(2): 181-186. 1999.

Summerford, C.M., **Bartlett, J.S.** and Samulski, R.J. Adeno-Associated Virus Vectors and Successful Gene Therapy: The Gap is Closing. *Gene Ther. Regulation*. 1(1): pp-pp. 1999.

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***PUBLICATIONS - Journal Articles and Book Chapters (Continued)***

Summerford, C.M., **Bartlett, J.S.**, and Samulski, R.J.  $\alpha_v\beta_5$  Integrin: A Co-Receptor for Adeno-Associated Virus Type 2 Infection. *Nature Medicine*. 5(1): 78-82. 1999.

Teramoto, S., **Bartlett, J.S.**, McCarty, D., Samulski, R.J., and R.C. Boucher. Factors Influencing Adeno-Associated Virus-Mediated Gene Transfer to Human Cystic Fibrosis Airway Epithelial Cells: Comparison with Adenovirus Vectors. *J. Virol.* 72(11): 8904-8912. 1998.

**Bartlett, J.S.**, and Samulski, R.J. Fluorescent Viral Vectors: A New Technique for the Pharmacological Analysis of Gene Therapy. *Nature Med.* 4(5): 635-637. 1998.

**Bartlett, J.S.**, Samulski, R.J., and T.J. McCown. Selective and Rapid Uptake of Adeno-Associated Virus Type 2 (AAV-2) in Brain. *Hum. Gene Ther.* 9(8). 1998.

**Bartlett, J.S.** Gene Therapy. In: Coleman, W.B. and G.J. Tsongalis, eds., *Nucleic Acid Technology: Fundamentals and Applications for the Clinical Laboratorian*. Humana Press, NY. 1997.

**Bartlett, J.S.**, Ramamurthy, L., Sethna, M., Gowen, S., Samulski, R.J., and W.F. Marzluff. Efficient Expression of Protein Coding Genes From the Murine U1 Small Nuclear RNA Promoters. *Proc. Natl. Acad. Sci. USA*. 93: 8852-8857. 1996.

**Bartlett, J.S.**, Xiao, X., and R.J. Samulski. Adeno-Associated Virus Vectors for Gene Transfer. In: Enquist, L.W. and Lowenstein, P., eds. *Protocols for Gene Transfer in Neuroscience: Toward Gene Therapy of Human Neurological Disorders*. Sussex, England. J. Wiley & Sons, Ltd., 1996.

**Bartlett, J.S.** and R.J. Samulski. Adeno-Associated Virus Vectors for Human Gene Therapy. In: Cooper, D.N. and N.R. Lemoine, eds. *Gene Therapy*, Oxford, UK, Bios Scientific Publishers Ltd. 1996.

**Bartlett, J.S.** and R.J. Samulski. Methods for the Construction and Propagation of Recombinant Adeno-Associated Virus (AAV) Vectors. In: Robbins, P., ed. *Gene Therapy Protocols: Methods in Molecular Genetics*, New York, NY. Humana Press. 1997.

**Bartlett, J.S.**, Samulski, R.J., Li, Y., and E.T. Samulski. Genetically expressed monodisperse  $\alpha$ -helical polypeptides. In: *New Macromolecular Architectures and Functions*. Heidelberg, Germany. Springer Inc., 1996.

**Bartlett, J.S.**, Quattrocchi, K.B., and R.J. Samulski. The Development of Adeno-Associated Virus as a Vector for Cancer Gene Therapy. In: Sobol, R. and K.J. Scanlon, eds. *The Internet Book of Gene Therapy: Cancer Therapeutics*. Stamford, CT. Appleton & Lange. 1995.

**Bartlett, J.S.** and R.J. Samulski. Genetics and Biology of Adeno-associated Virus. In: Kaplitt, M. and Loewy, A., eds. *Viral Vectors: Neuroscience Applications for Gene Therapy*. San Diego, CA. Academic Press. 1995.

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***PUBLICATIONS – Journal Articles and Book Chapters (Continued)***

Bhaumik, D., Yang, B., Trangas, T., **Bartlett, J.S.**, M.S. Coleman and D.H. Sorcher. Identification of a Tripartite Basal Promoter Which Regulates Human Terminal Deoxynucleotidyl Transferase Gene Expression. *J. Biol. Chem.* 269(22): 15861-15867. 1994.

***PUBLICATIONS – in press, submitted, or in preparation***

**Bartlett, J.S.** Highlighted Vector - Adeno-Associated Virus (AAV). In: Simari, R. and T. O'Brien, eds., *Current Cardiology Reports*. Current Science Inc., Philadelphia, PA. solicited review, 2000.

**Bartlett, J.S.** and P.A. Hoffee. Cloning and Characterization of Rat Purine Nucleoside Phosphorylase (PNP) Complementary DNA: Decreased PNP Messenger RNA Levels in Enzyme-Deficient Rat Hepatoma Cells. Submitted to Biochem. Biophys. Res. Comm., 1999.

**Bartlett, J.S.**, Boucher, R.C. and R.J. Samulski. Binding and Uptake of Recombinant AAV Vectors is Limiting in Well Differentiated Ciliated Airway Epithelium. In preparation.

**Bartlett, J.S.**, Gowen, S., Boucher, R.C. and R.J. Samulski. Evaluation of Small Promoters for the Expression of the Human CFTR gene in Airway Epithelial Cells from AAV Vectors. In preparation.

**Bartlett, J.S.**, Summerford, C.M., Walsh, C.E. and R.J. Samulski. Factors Influencing the Transduction of Human Hematopoietic Stem Cells by Recombinant AAV Vectors. In preparation.

***PUBLICATIONS - Selected Abstracts***

Arnold, G.S., Shi, W. and **Bartlett, J.S.** Targeting of Adeno-Associated Virus (AAV) Vectors to Specific Cell Populations by Modification of Viral Capsid Proteins. *American Society for Gene Therapy, 3rd Annual Meeting*, Denver, CO. 2000.

**Bartlett, J.S.** Cellular Barriers to Efficient AAV-Mediated CFTR Gene Delivery for the Treatment of Cystic Fibrosis. *Pediatric Academic Societies and American Academy of Pediatrics, Joint Meeting*, Boston, MA. 2000.

**Bartlett, J.S.** Infectious Entry Pathway of AAV: Implications for Therapeutic Gene Delivery to Different Cell Types. *Keystone Symposium. Gene Therapy: The Next Millennium*, Keystone, CO. 2000.

Samulski, R.J. and **Bartlett, J.S.** Adeno-Associated Virus Vectors; Gene Therapy and Viral Vectors, the Gap is Closing. *Keystone Symposium. Gene Therapy: The Next Millennium*, Keystone, CO. 2000.

**Bartlett, J.S.** and Samulski, R.J. Cell-Targeted Adeno-Associated Virus (AAV) Vector Systems for Therapeutic Gene Delivery. *American Society for Gene Therapy, 2nd Annual Meeting*, Washington, DC. 1999.

**Bartlett, J.S.** and Samulski, R.J. Infectious Entry Pathway of Adeno-Associated Virus (AAV) and AAV Vectors. *American Society for Gene Therapy, 2nd Annual Meeting*, Washington, DC. 1999.

**Bartlett, J.S.**, Boucher, R.C. and R.J. Samulski. Cell-Targeted Adeno-Associated Virus (AAV) Vector Systems for Therapeutic Gene Delivery. Cold Spring Harbor Laboratory Biotechnology Conference, *Vector Targeting Strategies for Therapeutic Gene Delivery*, 1999.

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#### ***PUBLICATIONS - Selected Abstracts (Continued)***

**Bartlett, J.S.** and Samulski, R.J. Defining and Altering the Tropism of Adeno-Associated Virus (AAV). *American Society for Gene Therapy, 1st Annual Meeting*, Seattle, WA. 1998.

Walsh, C.W., Summerford, C., Fu, K.-L., **Bartlett, J.S.**, and Samulski, R.J. Adeno-Associated Virus type-2 (AAV-2) proteoglycan receptor expression on hematopoietic stem/progenitor cells. *American Society for Gene Therapy, 1st Annual Meeting*, Seattle, WA. 1998.

Walsh, C.W., Summerford, C., **Bartlett, J.S.**, Xiao, X., McCown, T., and Samulski, R.J. Molecular and Cellular Mechanism of Adeno-Associated Virus (AAV) Transduction: A Multistep Pathway. *Keystone Symposium; Gene Therapy*, Keystone, CO. 1998.

**Bartlett, J.S.**, Boucher, R.C., and Samulski, R.J. Cell-Targeted Gene Therapy Vectors: Adeno-associated Virus Vector Transduction of Non-permissive Cells Mediated by Bispecific F(ab' $\gamma$ )<sub>2</sub> Antibody. *North American CF Conference*, Nashville, TN. 1997.

**Bartlett, J.S.**, Samulski, R.J., and R.C. Boucher. Factors Influencing Adeno-Associated Virus (AAV) Vector Transduction of Airway Epithelial Cells. *North American CF Conference*, Nashville, TN. 1997.

**Bartlett, J.S.**, Boucher, R.C., and Samulski, R.J. Cell-Targeted Gene Therapy Vectors: Adeno-associated Virus Vector Transduction of Non-permissive Cells Mediated by Bispecific F(ab' $\gamma$ )<sub>2</sub> Antibody. Cold Spring Harbor Laboratory Biotechnology Conference, *Vector Targeting Strategies for Therapeutic Gene Delivery*, 1997.

Teramoto, S., **Bartlett, J.S.**, Samulski, R.J., and R.C. Boucher. Adeno-Associated Virus Mediated Gene Transfer to Airway Epithelial Cells *In Vivo*. *Amer. Thoracic Soc.*, 1995.

Teramoto, S., **Bartlett, J.S.**, McCarty, D., Xiao, X., Samulski, R.J., and R.C. Boucher. Adeno-Associated Virus Mediated Gene Transfer to Cystic Fibrosis Airway Epithelial Cells is Enhanced by Helper Virus in a Titer Dependent Manner. *North American CF Conference*, 1995.

**Bartlett, J.S.**, Walsh, C.E., Liu, J.M., Goodman, S., Xiao, X., Neinhuis, A.W., and R.J. Samulski, Development and Use of AAV Vectors for Gene Transfer and Therapy. *Cancer Gene Therapy*. 1(2), 1991.

**Bartlett, J.S.** and P.A. Hoffee. Isolation of Rat Purine Nucleoside Phosphorylase Gene Sequences using the Polymerase Chain Reaction. *Proc. FASEB*, July 1991.

**Bartlett, J.S.**, Everly, L., and P.A. Hoffee. Cloning of a cDNA for Rat Purine Nucleoside Phosphorylase Gene Sequences from Rat Hepatoma Cells. *Proc. FASEB*, July 1988.

**Bartlett, J.S.** and P.A. Hoffee. Regulation of Purine Nucleoside Phosphorylase Activity in Rat Hepatoma Cells. NCI Workshop, Histopathology of Neoplasia, invited speaker, May 1988.

### ***PATENTS AND INVENTIONS***

Molecular-Targeted Virus  
Single-Chain Fv Antibodies to AAV Capsids  
Fluorescent Viral Vectors  
Mutant AAV vectors for directed gene delivery