Glen N. Barber, Ph.D.
CURRICULUM VITAE

1. May 3, 2018

PERSONAL

2. Name:	Glen Norman Barber, Ph.D.
3. Current academic rank:	Professor and Chairman
4. Primary department:	Cell Biology
5. Secondary or Joint Appointments:	Sylvester Comprehensive Cancer Center
6. Citizenship:	United Kingdom and USA
7. Visa type:	N/A

HIGHER EDUCATION

8. Institutional:

London University, London School of Hygiene & Tropical Medicine / Center for Applied Microbiology & Research, England	Ph.D.	1989	Molecular Virology
University of Portsmouth, England	B.Sc. (Hons)	1984	Molecular Biology

9. Non-Institutional: N/A

10. Certification: N/A

EXPERIENCE

11. Academic:

2011 – Present	Chairman and Professor, Department of Cell Biology, University of Miami Miller School of Medicine (UMMSOM), Miami, FL, USA**.**
2008 – Present	Professor, Department of Medicine, University of Miami Miller School of Medicine (UMMSOM), Miami, FL, USA.
2006 – Present	Eugenia J. Dodson Endowed Chair in Cancer Research, Sylvester Comprehensive Cancer Center (SCCC), UMMSOM.
2004 – Present	Professor, Department of Microbiology and Immunology, UMMSOM.
2009 – 2016	Program Leader, Viral Oncology Program, SCCC, UMMSOM
2006 – 2016	Associate Director for Basic Research, SCCC, UMMSOM.

2002 – 2009	Co-Program Leader, Viral Oncology Program, SCCC, UMMSOM
1999 – 2004	Associate Professor, Department of Microbiology and Immunology, UMMSOM.
1996 – 1998	Assistant Professor, Department of Microbiology and Immunology, Winship Cancer Center, Emory University, Atlanta GA, USA.
1995	Visiting Scientist, The Institute of Medical Science, The University of Tokyo, Minato-ku, Tokyo, Japan.
1993 – 1995	Research Assistant Professor, Department of Microbiology, University of Washington, Seattle, WA USA.
1989 – 1993	Research Associate, Regional Primate Research Center and Department of Microbiology, University of Washington, Seattle, WA.

12. Hospital Appointments: N/A

13. Non-Academic: N/A

14. Military: N/A

PUBLICATIONS

1. Clegg JC, **Barber GN**, Chamberlain JF, Oram JD. Expression of Lassa virus nucleocapsid gene fragments in bacteria. *Medical Microbiology and Immunology*. 1986;175(2-3):93-5. PubMed PMID: 3523185.

2. **Barber GN**, Clegg JC, Chamberlain J. Expression of Lassa virus nucleocapsid protein segments in bacteria: purification of high-level expression products and their application in antibody detection. *Gene*. 1987;56(1):137-44. PubMed PMID: 3315857.

3. Lloyd G, **Barber GN**, Clegg JC, Kelly P. Identification of Lassa fever virus infection with recombinant nucleocapsid protein antigen. *Lancet*. 1989;2(8673):1222. PubMed PMID: 2572935.

4. **Barber GN**, Clegg JC, Lloyd G. Expression of the Lassa virus nucleocapsid protein in insect cells infected with a recombinant baculovirus: application to diagnostic assays for Lassa virus infection. *The Journal of General Virology*. 1990;71 (Pt 1):19-28. PubMed PMID: 2406367.

5. **Barber GN**, Tomita J, Hovanessian AG, Meurs E, Katze MG. Functional expression and characterization of the interferon-induced double-stranded RNA activated P68 protein kinase from Escherichia coli. *Biochemistry*. 1991;30(42):10356-61. PubMed PMID: 1718419.

6. Katze MG, Wambach M, Wong ML, Garfinkel M, Meurs E, Chong K, Williams BR, Hovanessian AG, **Barber GN**. Functional expression and RNA binding analysis of the interferon-induced, double-stranded RNA-activated, 68,000-Mr protein kinase in a cell-free system. *Molecular and Cellular Biology*. 1991;11(11):5497-505. PubMed PMID: 1717830; PubMed Central PMCID: PMC361919.

7. Hu SL, Abrams K, **Barber GN**, Moran P, Zarling JM, Langlois AJ, Kuller L, Morton WR, Benveniste RE. Protection of macaques against SIV infection by subunit vaccines of SIV envelope glycoprotein gp160. *Science*. 1992;255(5043):456-9. PubMed PMID: 1531159.

8. Meurs EF, Watanabe Y, Kadereit S, **Barber GN**, Katze MG, Chong K, Williams BR, Hovanessian AG. Constitutive expression of human double-stranded RNA-activated p68 kinase in murine cells mediates phosphorylation of eukaryotic initiation factor 2 and partial resistance to encephalomyocarditis virus growth. *Journal of Virology.* 1992;66(10):5805-14. PubMed PMID: 1382142; PubMed Central PMCID: PMC241456.

9. Koromilas AE, Roy S, **Barber GN**, Katze MG, Sonenberg N. Malignant transformation by a mutant of the IFN-inducible dsRNA-dependent protein kinase. *Science.* 1992;257(5077):1685-9. PubMed PMID: 1382315.

10. **Barber GN**, Tomita J, Garfinkel MS, Meurs E, Hovanessian A, Katze MG. Detection of protein kinase homologues and viral RNA-binding domains utilizing polyclonal antiserum prepared against a baculovirus-expressed ds RNA-activated 68,000-Da protein kinase. *Virology.* 1992;191(2):670-9. PubMed PMID: 1360180.

11. Meurs EF, Galabru J, **Barber GN**, Katze MG, Hovanessian AG. Tumor suppressor function of the interferon-induced double-stranded RNA-activated protein kinase. *Proceedings of the National Academy of Sciences of the United States of America.* 1993;90(1):232-6. PubMed PMID: 7678339; PubMed Central PMCID: PMC45634.

12. Black TL, **Barber GN**, Katze MG. Degradation of the interferon-induced 68,000-M(r) protein kinase by poliovirus requires RNA. *Journal of Virology*. 1993;67(2):791-800. PubMed PMID: 7678306; PubMed Central PMCID: PMC237432.

13. Dever TE, Chen JJ, **Barber GN**, Cigan AM, Feng L, Donahue TF, London IM, Katze MG, Hinnebusch AG. Mammalian eukaryotic initiation factor 2 alpha kinases functionally substitute for GCN2 protein kinase in the GCN4 translational control mechanism of yeast. *Proceedings of the National Academy of Sciences of the United States of America.* 1993;90(10):4616-20. PubMed PMID: 8099443; PubMed Central PMCID: PMC46563.

14. **Barber GN**, Wambach M, Wong ML, Dever TE, Hinnebusch AG, Katze MG. Translational regulation by the interferon-induced double-stranded-RNA-activated 68-kDa protein kinase. *Proceedings of the National Academy of Sciences of the United States of America.* 1993;90(10):4621-5. PubMed PMID: 8099444; PubMed Central PMCID: PMC46564.

15. **Barber GN**, Edelhoff S, Katze MG, Disteche CM. Chromosomal assignment of the interferon-inducible double-stranded RNA-dependent protein kinase (PRKR) to human chromosome 2p21-p22 and mouse chromosome 17 E2. *Genomics.* 1993;16(3):765-7. doi: 10.1006/geno.1993.1262. PubMed PMID: 7686883.

16. Hu SL, Stallard V, Abrams K, **Barber GN**, Kuller L, Langlois AJ, Morton WR, Benveniste RE. Protection of vaccinia-primed macaques against SIVmne infection by combination immunization with recombinant vaccinia virus and SIVmne gp160. *Journal of Medical Primatology.* 1993;22(2-3):92-9. PubMed PMID: 8411113.

17. **Barber GN**, Thompson S, Lee TG, Strom T, Jagus R, Darveau A, Katze MG. The 58-kilodalton inhibitor of the interferon-induced double-stranded RNA-activated protein kinase is a tetratricopeptide repeat protein with oncogenic properties. *Proceedings of the National Academy of Sciences of the United States of America.* 1994;91(10):4278-82. PubMed PMID: 7514301; PubMed Central PMCID: PMC43768.

18. Romano PR, Green SR, **Barber GN**, Mathews MB, Hinnebusch AG. Structural requirements for double-stranded RNA binding, dimerization, and activation of the human eIF-2 alpha kinase DAI in Saccharomyces cerevisiae. *Molecular and Cellular Biology.* 1995;15(1):365-78. PubMed PMID: 7799945; PubMed Central PMCID: PMC231972.

19. Rajan P, Swaminathan S, Zhu J, Cole CN, **Barber G**, Tevethia MJ, Thimmapaya B. A novel translational regulation function for the simian virus 40 large-T antigen gene. *Journal of Virology.* 1995;69(2):785-95. PubMed PMID: 7815544; PubMed Central PMCID: PMC188643.

20. **Barber GN**, Jagus R, Meurs EF, Hovanessian AG, Katze MG. Molecular mechanisms responsible for malignant transformation by regulatory and catalytic domain variants of the interferon-induced enzyme RNA-dependent protein kinase. *The Journal of Biological Chemistry.* 1995;270(29):17423-8. PubMed PMID: 7615547.

21. **Barber GN**, Wambach M, Thompson S, Jagus R, Katze MG. Mutants of the RNA-dependent protein kinase (PKR) lacking double-stranded RNA binding domain I can act as transdominant inhibitors and induce malignant transformation. *Molecular and Cellular Biology.* 1995;15(6):3138-46. PubMed PMID: 7539103; PubMed Central PMCID: PMC230545.

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24. Abraham N, Jaramillo ML, Duncan PI, Methot N, Icely PL, Stojdl DF, **Barber GN**, Bell JC. The murine PKR tumor suppressor gene is rearranged in a lymphocytic leukemia. *Experimental Cell Research.* 1998;244(2):394-404. doi: 10.1006/excr.1998.4201. PubMed PMID: 9806790.

25. Balachandran S, Kim CN, Yeh WC, Mak TW, Bhalla K, **Barber GN**. Activation of the dsRNA-dependent protein kinase, PKR, induces apoptosis through FADD-mediated death signaling. *The EMBO Journal.* 1998;17(23):6888-902. doi: 10.1093/emboj/17.23.6888. PubMed PMID: 9843495; PubMed Central PMCID: PMC1171037.

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30. Balachandran S, **Barber GN**. Vesicular stomatitis virus (VSV) therapy of tumors. *IUBMB Life.* 2000;50(2):135-8. doi: 10.1080/713803696. PubMed PMID: 11185959.

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36. Saunders LR, Perkins DJ, Balachandran S, Michaels R, Ford R, Mayeda A, **Barber GN**. Characterization of two evolutionarily conserved, alternatively spliced nuclear phosphoproteins, NFAR-1 and -2, that function in mRNA processing and interact with the double-stranded RNA-dependent protein kinase, PKR. *The Journal of Biological Chemistry.* 2001;276(34):32300-12. doi: 10.1074/jbc.M104207200. PubMed PMID: 11438536.

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46. Porosnicu M, Mian A, **Barber GN**. The oncolytic effect of recombinant vesicular stomatitis virus is enhanced by expression of the fusion cytosine deaminase/uracil phosphoribosyltransferase suicide gene. *Cancer Research.* 2003;63(23):8366-76. PubMed PMID: 14678998.

47. Balachandran S, **Barber GN**. Defective translational control facilitates vesicular stomatitis virus oncolysis. *Cancer Cell.* 2004;5(1):51-65. PubMed PMID: 14749126.

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49. Balachandran S, Thomas E, **Barber GN**. A FADD-dependent innate immune mechanism in mammalian cells. *Nature.* 2004;432(7015):401-5. doi: 10.1038/nature03124. PubMed PMID: 15549108.

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52. Pataer A, Vorburger SA, Chada S, Balachandran S, **Barber GN**, Roth JA, Hunt KK, Swisher SG. Melanoma differentiation-associated gene-7 protein physically associates with the double-stranded RNA-activated protein kinase PKR. Molecular therapy : *The Journal of the American Society of Gene Therapy.* 2005;11(5):717-23. doi: 10.1016/j.ymthe.2005.01.018. PubMed PMID: 15851010.

53. Greidinger EL, Zang Y, Jaimes K, Hogenmiller S, Nassiri M, Bejarano P, **Barber GN**, Hoffman RW. A murine model of mixed connective tissue disease induced with U1 small nuclear RNP autoantigen. *Arthritis and Rheumatism.* 2006;54(2):661-9. doi: 10.1002/art.21566. PubMed PMID: 16453294.

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62. Diaz RM, Galivo F, Kottke T, Wongthida P, Qiao J, Thompson J, Valdes M, **Barber G**, Vile RG. Oncolytic immunovirotherapy for melanoma using vesicular stomatitis virus. *Cancer Research.* 2007;67(6):2840-8. doi: 10.1158/0008-5472.CAN-06-3974. PubMed PMID: 17363607.

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65. Qiao J, Kottke T, Willmon C, Galivo F, Wongthida P, Diaz RM, Thompson J, Ryno P, **Barber GN**, Chester J, Selby P, Harrington K, Melcher A, Vile RG. Purging metastases in lymphoid organs using a combination of antigen-nonspecific adoptive T cell therapy, oncolytic virotherapy and immunotherapy. *Nature Medicine.* 2008;14(1):37-44. doi: 10.1038/nm1681. PubMed PMID: 18066076.

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17. **Barber GN.** (2011) Intracellular DNA Regulated Innate Immune Signaling. Opinions in Immunology (to be submitted).

18. **Barber GN.** STING-dependent cytosolic DNA sensing pathways. Trends in immunology. 2014;35(2):88-93. Epub 2013/12/07. doi: 10.1016/j.it.2013.10.010. PubMed PMID: 24309426.

19. Ahn J, **Barber GN.** Self-DNA, STING-dependent signaling and the origins of autoinflammatory disease. Current opinion in immunology. 2014;31:121-6. doi: 10.1016/j.coi.2014.10.009. PubMed PMID: 25459004.

20. Konno H, **Barber GN.** The STING controlled cytosolic-DNA activated innate immune pathway and microbial disease. Microbes and infection / Institut Pasteur. 2014;16(12):998-1001. doi: 10.1016/j.micinf.2014.10.002. PubMed PMID: 25449752.

21. **Barber GN.** STING: infection, inflammation and cancer. Nat Rev Immunol. 2015;15(12):760-70. doi: 10.1038/nri3921. PubMed PMID: 26603901.

INTERNATIONAL FELLOWSHIPS, HONORS AND AWARDS:

- Instituto Juan March de Estudios e Investigaciones Fellowship (Spain;1993).
- Japanese Society for the Promotion of Science (JSPS) Long Term Invitation Fellowship (Japan: 1995).
- U. Miami, Sylvester Comprehensive Cancer Center Endowed Chair, 2006-present.
- U. Miami, Sylvester Comprehensive Cancer Outstanding Investigator, 2005.
- U. Miami, Provost's Scholarly Activity Awards (Medicine), 2005.
- International Society for Interferon and Cytokine Research (ISICR) Milstein Award, Lisbon, Portugal, 2009.
- Iron Arrow Society, University of Miami, FL. 2011.
- Outstanding Visiting Scientist award for collaboration with the Universidade Federal de Minas Gerais (UFMG) Belo Horizonte, Brazil from the Agency CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior), the Brazilian Federal Agency for the Support and Evaluation of Graduate Education. 2014-2017.

GRANTS

ACTIVE

1. ***5R01A107933607 (Barber) NIH-NIAID*** 2008-2019 $2,204,352
   PI: The Role of STING in Innate Immunity.

2. ***5R01A1079336-07 (Barber) NIH-NIAID***, Administrative Supplement- ZIKA Virus 2015-2017 $223,489 PI: The Role of STING in Innate Immunity.

3. ***1RO1CA19440401 (Barber) NIH-NCI*** 2015-2020 $1,666,911
   PI: Vesicular Stomatitis Virus (VSV) Replication in Malignant Cells.

4. ***Florida Department of Health (Barber)*** 2017-2020 (ended 2018) Zika Research Grant $1,141,582 "Evaluation of Novel Vaccines That Prevent Zika Infection"

5. **NIH-NCI R01** ***(PI: Ramos/Co PI: Barber)*** 01/01/2018 – 12/31/2022 ***"***Epigenetic Targeting of Afro-Caribbean Variant of HTLV-1 Related Adult T-cell Leukemia-lymphoma"

6. ***Florida Department of Defense (CDMRP) (PI: Xu/Co PI: Barber)*** 4/1/2018-4/1/2020
   Ovarian Cancer Research Program Pilot Award "Suppression of Innate Immunity in Ovarian Carcinogenesis"

PENDING FUNDING

PAST FUNDING

1. ***R56 AI07933606 (Barber)*** 2014-2015 $383,750
   PI: The Role of STING in Innate Immunity.

2. ***PO1CA128115 (Barber)*** 2009-2014; $7,308,476
   PI and Project 1: Host Defense Regulation and Viral Oncolysis.

3. ***U01AI083015 (Barber)*** 2009-2014; $2,143,920
   PI: Evaluation of Novel DExD/H Helicases in Innate Immune Signaling.

4. ***R01AI079336 (Barber),*** 2008-2013; $1,900,000.
   PI: Host defense, STING and the regulation of IFN-production.

5. ***09BR01 (Goodwin)*** 2009-2012; $220,614
   PI Project 1: Preclinical and Clinical Development of VSV-IFN for the Treatment of Advanced Head and Neck Cancer.

6. ***BC103158 (Barber) DOD*** 04/01/2011-03/31/2012; $114,750
   PI: Identifying a defective pathway in innate immunity as an immuno-escape mechanism for breast cancer development

7. ***PROPOSAL M1101801 (Barber) WCA*** 6/1/11 - 5/31/12; $ 50,000
   PI: A Novel Assay to Detect Multiple Viral Gene Expression in Cancer

8. ***R01AI071193 (Barber)*** 2009-2011; $250,000.
   PI: Post-translational regulation of innate immune signaling.

9. ***RO1 CA09592406 (Barber)*** 2002-2011; $1,912,500.
   PI: Mechanisms of VSV-mediated Oncolysis.

10. ***Damon Runyon 3707 (Ramos)*** 2007-2010
    Mentor: JC Ramos, M.D. : Resistance to Interferon-Based Therapy in Adult T-Cell Leukemia

11. ***R01CA121935 (Harrington)*** 2006-2011 $1,500,000.
    PI (2009-2011): Targeted Therapy for Burkitt Lymphoma in Resource Poor Settings.

12. ***R01CA112217 (Ramos)*** 2009-2011
    Co-PI: Targeting EBV Latency in Burkitt's Lymphoma

13. ***5R21AI07709302 NIH*** 9/27/07 – 8/31/07; $417,116
A FADD-Associated Helicase Essential for the Host Defense

14. ***UTexas*** 6/1/06 – 5/31/07; $23,800
Molecular and Cellular Biological Experiments Involving Purification of Proteins and in Vitro Binding Assays

15. ***UTexas*** 6/1/06 – 8/14/06; $11,912
Molecular and Cellular Biological Experiments Involving Purification of Proteins and in Vitro Binding Assays

16. ***PDF0503685 Susan G Komen*** 5/1/05 – 4/30/08; $135,000
Characterizations of VSV Oncolytic Activity in Breast Cancer Model Systems

17. ***W11NF04C0092 DOD*** 9/10/04 – 12/31/06; $255,000
Exploitation of Innate Signaling Pathways for Novel Diagnostic and Therapeutic Interventions

18. ***04TSP02 FL Biomed*** 8/1/04 – 8/31/06; $970,000
Nuclear Transport and Oncolysis: Novel Targets in Cancer Therapy

19. ***W911NF0410197 DOD*** 6/4/04 – 6/3/07; $272,660
Identifying Conserved Mechanisms of Innate Immunity Using Drosphila Models

20. ***W911NF0410197 DOD*** 6/4/04 – 6/3/05; $130,885
Identifying Conserved Mechanisms of Innate Immunity Using Drosphila Models (Supplement)

21. ***5RO1AI05367005 NIH*** 8/1/03 – 1/31/08; $1,340,679
Immunogenicity of Hepatitis C Virus (HCV) Like Particles

22. ***1RO1CA09592405 NIH*** 7/1/03 – 4/30/08; $1,817,255
Mechanisms of VSV Mediated Oncolysis

23. ***GTXV311GTX Inc.*** 3/1/02 – 4/30/03; $176,180
Development and Use of VSV and Anti-HIV Therapeutics

24. ***AACR*** 7/1/01 – 6/30/02; $30,000
Selective Oncolytic Effect of Wild-Type and Recombinant Vesicular Stomatitis Virus

25. ***5RO1CA08424705 NIH*** 2/17/00 – 1/31/05; $1,121,964
Function Analysis of the DSRNA Regulated Nuclear Factors, NFAR-1and 2

26. ***7R29CA7264803 NIH*** 9/10/97 – 8/31/99; $326,135
Growth Regulation by PKR

27. ***R21 AI077093 (Barber)*** 2007-2009 $500,000.
PI; Characterization of a novel helicase in innate immunity.

28. ***3D43TW0001719S1 (Shor-Posner)***
Mentor: Training in Molecular Techniques for Building HIV/Oncology Research Capacity in Bahia, Brazil

29. ***07BR01 (Harrington)*** 2007-2009 $1,000,000.
PI, 3rd project: VSV Oncolysis and Lymphoma.
Pathogenesis and Therapy of Viral Related Lymphomas

30. ***RO1 CA8643107 (Barber)*** 2004-2009; $1,900,000.
PI: Role of PKR in Growth Regulation and Apoptosis.

COMPANIES & BUSINESSES

1.) Vyriad Co-Founder and on Board of Directors, 2016-present
Using Oncolytic viruses as therapeutics to treat cancer

2.) STINGINN Founder & CEO, 2015- present
Utilizing compounds that regulate the innate immune modulator STING, to treat inflammatory disease and cancer.

PATENTS

1.) Recombinant VSV for the treatment of tumor cells: US Serial 10/194,594.
2.) Immunotherapy compositions: US Serial: 11/008,936.
3.) STING a regulator of innate immunity: US Serial: PCT/US2009/052767.
4.) Modulating Immune Responses: US Serial: PCT/US2013/038840

JOURNAL REVIEWER:

- Cancer Research
- Cell
- Cell Reports
- EMBO J
- EMBO Reports
- Gene
- Genetics
- Immunity
- Int. J. Cancer Research
- Journal of Biological Chemistry
- Journal of Experimental Medicine
- Journal of Immunology
- Journal of Interferon Research
- Journal of Virology

- Molecular Cancer (*Ed. Board*)
- Molecular and Cellular Biology
- Molecular Cell
- Nature
- Nature (Biotechnology)
- Nature Communications
- Nature Immunology
- Nature Medicine
- Nucleic Acids Research
- Oncogene (*Ed Board*)
- Proc. Natl. Acad. Sci. USA
- Science
- Virology
- Virus Research

AD HOC GRANT REVIEWER:

- American Cancer Society (ACS)
- DOD: Breast Cancer August 2002
- NIH: HCV Infection and Liver Disease 2000
- NIH- NIAID-PO1 Virology Study Section 2003
- Canadian Institute of Health Research
- NIH-NCI : Interferon PO1 Study Section 2003
- Nat. Sci. Found. (NSF)
- NIH-NIAID: Virology A Study Section June 2002, February 2003, 2004
- NIH-NCI: Gene Therapy PO1 Study Section 2004
- NIH-NIAID: Experimental Virology Study Section, June 2004
- NIH-NCI: PO1 Study Section June 2007
- NIH-NIAID: Virology B Study Section, June 2008, Feb 2009
- ACS Study Section June, 2006
- Executive Advisory Committee (Schulze), Mayo Clinic Cancer Center, MN. 2008-2009
- NIH: BAA 08-037 Immune receptors, April 2009
- NIH-NCI: Cancer Inst SiteVisit 2010
- NIH-NAID:P01 Special Emphasis Panel,Resistance to Viral Infections, January 2011
- NIH-NCI: DT Study Section January 2011
- NIH-NIAID:P01 Pandemic Flu February 2011
- NIH-NIAID:U19 OMICs in infectious disease Feb 2013

UNIVERSITY SERVICE AND TEACHING:

1991, 1993 Instructor/Lecturer Department of Pathobiology, University of Washington, WA.
1993 Lecturer: Department of Microbiology, Graduate seminars in Virology
University of Washington, WA.
1994 Lecturer: School of Medicine, Medical student seminars in Virology
University of Washington, WA.

1996 – 1998 Member, Graduate Programs in Microbiology and Molecular Genetics (MMG) and Genetics and Molecular Biology (GMB) , Emory University. Graduate students- lectures on Viral Oncology. Medical Students- RNA viruses including retroviruses/HIV, tumor viruses. Physician Assistant- Virology.

1999 – Lectures, Grad course in Micro and Immuno; Univ. of Miami School of Medicine. Virology; Advanced course in virology, Methods in Molecular Biology, Tumor Biology, Undergrad Virology.

2002 – Member; Viral Oncology Program, SCCC, Univ Miami School Med.

2003 – 2008 Director, Graduate Virology, Department of Microbiology and Immunology, Univ. Miami School of Med.

2003 – 2008 Chair, Search committee Virology, Department of Microbiology and Immunology, University of Miami School Med.

2003 – 2009 Co-leader; Viral Oncology Program, SCCC, Univ Miami School Med.

2004 – 2009 Promotion and Tenure Board. Univ Miami School Med.

2006 – 2016 Associate Director for Basic Research, SCCC, Univ Miami School Med. Responsibilities include coordinating research budget, recruitment, philanthropy, technology and shared resources, multidisciplinary research programs, biostatistics/bioinformatics, chair scientific steering committee, Sylvester executive committee.

2009 – 2016 Program Leader, Viral Oncology Program, SCCC, UMMSOM

2009 – Member of the Internal Advisory Board of the Miami Clinical and Translational Sciences Institute (CTSI). A University-wide initiative to increase interdisciplinary, inter departmental and inter-school collaboration in order to enhance the rate of scientific discovery and the translation of scientific findings into clinical practice and community health.

2010 – 2012 Member of the University of Miami's Academic Personnel Board. The responsibility of the APB is to review the promotion and tenure recommendations from each school and college and to convey an opinion on each candidate to the Provost.

2011 – Chairman, Department of Cell Biology.

2012 – 2014 Member of the Research Advisory Committee (RAC committee), to oversee all faculty and administive recruitement at UMMSM.

2012 – Decanal Title Review Committee (DTRC) to review all Decanal titles at UMMSM.

2014- Member, Sylvester Comprehensive Cancer Center Board of Governors

2016 – Member, University of Miami- Roadmap to Our New Century, led by University of Miami President Julio Frenk

POST DOCTORAL ASSOCIATES

Dillon Betancourt

GRADUATES, Ph.D., FROM LAB:

Siddharth Balachandran, 2000
Laura Saunders, 2002
Darren Perkins, 2004
Jason Emmanuel, 2005
Heather Ezelle. 2006
Rachel Elsby, 2007
Jinhee Hyun, 2011
Josh Heiber, 2011
Zhe Ma, 2013
Guoxin Ni- Graduated 2017
Dillon Betancourt- Graduated 2017

MENTORSHIP:

Siddharth Balachandran PhD (Graduate Student, Post-Doc, Research Assistant Professor- 1996-2007); Assistant Professor Fox Chase Cancer Center.

Juan Carlos Ramos MD (Damon Runyon Cancer Research Foundation 2007-2010), Assistant Professor UMMSOM.

Emmanuel Thomas, MD, Ph.D: (Graduate Student 2001-2004, UMMSOM); 2012 Research Assistant Professor, Department of Cell Biology, UMMSOM.

Alan Goodman, Ph.D: (Post doc, 2010- K99 award, UMMSOM); 2015 Assistant Professor- Washington State University.

Jeonghyun Ahn, Ph.D: (Post Doc Fellow, 2011-2016, UMMSOM); 2015 Research Assistant Professor- Department of Cell Biology- UMMSOM.

INVITED LECTURES (SINCE 2014):

1. **Barber, GN.** STING at the Crossroads of Cell-Intrinsic DNA Sensing. Keystone Symposia on Molecular and Cellular Biology, Keystone, CO; *January 19-24, 2014.*

2. **Barber, GN.** Anti-Viral Role of STING, a Cytosolic DNA sensor. Seminar at Faculdade de Medicina da Universidade de Sao Paulo, Brazil; *February 6-7, 2014.*

3. **Barber, GN.** Innate Immune Responses to Pathogens. Seminar at Instituto Oswaldo Cruz, Rio de Janeiro, Brazil; *February 10, 2014.*

4. **Barber, GN.** Mechanism of oncolysis: an innate immune perspective. 8th International Conference on Oncolytic Virus Therapeutics Oxford, United Kingdom; *April 10-13, 2014.*

5. **Barber, GN.** STING, Innate Signaling and Self DNA-Activated Inflammatory Disease. 58th Annual General Assembly & Scientific Meeting of the Japan College of Rheumatology, Tokyo, Japan; *April 24-26, 2014.*

6. **Barber, GN. 2014** STING, Cytosolic DNA Signaling and Inflammation. NIAMS Intramural Research Program (IRP) Scientific Retreat, Bethesda, Maryland; *May 29-30, 2014.*

7. **Barber, GN.** STING, and Evolutionarily Conserved Host Defense Pathway. Seminar at Novartis Institutes for Biomedical Research (NIBR), Emeryville, California; *July 29-30, 2014*.

8. **Barber, GN.** Defective innate immune pathways enable viral oncolysis. Japan Society of Gene Therapy Annual Meeting, Tokyo, Japan; *August 6-8, 2014.*

9. **Barber, GN.** STING-dependent cytoplasmic DNA sensor. PML Consortium Virus-Host Interactions Effects on Immune Escape Symposium, Washington, DC; *October 27-28, 2014*.

10. **Barber, GN.** STING, cytosolic DNA sensing, inflammation and cancer. Seminar at the Institute of Biomedical Investigations of the Argentinian Catholic University, Buenos Aires, Argentina; *November 17, 2014.*

11. **Barber, GN.** STING, cytosolic DNA sensing, inflammation and cancer. SAIC-SAI Meeting, Mar de Plata, Argentina; *November 15-22, 2014.*

12. **Barber, GN.** STING and Sterile Inflammation. Keystone Symposia on Innate Immunity and Determinants of Microbial Pathogenesis/Mechanisms of Pro-Inflammatory Diseases, Olympic Valley, CA; *April 19-24, 2015.*

13. **Barber, GN.** Innate immunity and Mechanisms of viral oncolytic activity. 9th International Conference on Oncolytic Virus Therapeutics Boston, MA; *June 13-16, 2015*.

14. **Barber, GN.** STING- Dependent Innate Immune Signaling and role in Inflammatory Disease and Cancer. Japanese Society for Interferon and Cytokine Research Meeting, Tokyo, Japan; *July 17-18, 2015.*

15. **Barber, GN.** STING- Dependent Innate Immune Signaling and role in Inflammatory Disease and Cancer. International Symposium of the Center for Animal Disease Models-Frontiers of the Immunology and Neurobiology, Tokyo, Japan; *July 21st, 2015.*

16. **Barber, GN.** STING- Dependent Innate Immune Signaling and role in Inflammatory Disease and Cancer. Seminar at the University of Tokyo, Japan; *July 22nd, 2015.*

17. **Barber, GN.** STING: Innate immune recognition. 2nd Annual Global Summit on Harnessing the Immune System in Cancer, Palm Beach, FL; *July 23-26, 2015.*

18. **Barber, GN.** Innate immune responses to viral infections. National Congress on HIV and Related Viruses, Salvador Brazil; *August 6-8, 2015.*

19. **Barber, GN.** STING-Dependent Innate Immune Signaling and Role in Inflammatory Disease and Cancer Anti-Inflammatory Research & Therapeutics Conference, Philadelphia, PA; *September 10-11, 2015.*

20. **Barber, GN.** Sensing of Virus Infections. Bridging the Sciences, Fort Lauderdale, FL; *September 17th, 2015.*

21. **Barber, GN.** Inflammation and DNA Damage. Fanconi Anemia Scientific Symposium, Toronto, Canada; *September 17-20, 2015.*

22. **Barber, GN.** STING, cytosolic DNA signaling, inflammation and cancer. Seminar at the Infectious Disease Research Institute, Seattle, WA; *October 1st, 2015.*

23. **Barber, GN.** The STING-Dependent Cytosolic DNA Signaling Pathway and Inflammatory Disease. 11th Annual Symposium on Primary Immunodeficiency Diseases with main theme: Inborn errors of Innate and Intrinsic Immunity, Newport Beach, California; *October 3-4, 2015.*

24. **Barber, GN.** Pathogen Recognition and STING Signaling. 2015 Meeting of the International Cytokine and Interferon Society (ICIS), Bamberg, Germany; *October 11-14, 2015.*

25. **Barber, GN.** STING, infection, inflammatory disease and cancer**.** 40th Congress of the Brazilian Society of Immunology, Sao Paulo, Brazil; *October 24-28, 2015.*

26. **Barber, GN.** Pathways of Innate Immune System Activation by Nucleic Acid. 2015 ACR/ARHP Annual Meeting, San Francisco, California; *November 8-11, 2015.*

27. **Barber, GN.** Immunology Course at Chulalongkorn University, Bangkok, Thailand; *January 22-23, 2016.*

28. **Barber, GN.** Innate Immune Signaling Pathways in Transformed Cells. Miami Winter Symposium 2016, Miami, Florida; *January 24-27, 2016.*

29. **Barber, GN.** Innate Immunity and HIV. 11th Advance Course on HIV Pathogenesis, Sao Paulo, Brazil; *April 14-20, 2016.*

30. **Barber, GN.** Self-DNA sensing in cancer and immunity. NIH Retreat: National Institute of Environmental Health Science- Division of Intramural Research, Raleigh, North Carolina; *April 26, 2016.*

31. **Barber, GN.** UNPHU Teaching course on Innate Immunity- IV Curso Internacional Presencial Actualizacion En Inmunologia Y Temas Selectos En Infectologia- Santo Domingo, Dominican Republic; *June 16-21, 2016*

32. **Barber, GN.** STING- Innate Immune Signaling, Auto Inflammatory Disease and Cancer. C III D- 2016 Inaugural Symposium: Innate Immunity in Health and Disease- University of Washington, Seattle, WA; *July 18-19, 2016*

33. **Barber, GN.** STING- Signaling and the Control of Infectious Disease, Inflammation, and Cancer. Vienna Biocenter Seminar Series, Vienna, Austria; *September 12-16, 2016*

34. **Barber, GN.** STING Signaling and the Control of Infectious Disease, Inflammation, and Cancer. Genesis Biotechnology Group Seminar Series- Distinguished Lecturer, Hamilton, NJ; *September 20-21, 2016*

35. **Barber, GN.** Merck Scientific Input Engagement- Innate Immune Sensing- scientific advisor. Boston MA; *September 22-23, 2016*

36. **Barber, GN.** STING- Dependent Innate Immune Signaling and Role in Inflammatory Disease and Cancer. The Wistar Institute Seminar Series- Distinguished Lecturer, Philadelphia, PA; *September 27-28, 2016*

37. **Barber, GN.** STING- Dependent Innate Immune Signaling and Role in Inflammatory Disease and Cancer. XLI Congress of the Brazilian Society of Immunology, Campos do Jordao, Sao Paulo, Brazil; *October 29- November 2, 2016*

38. **Barber, GN.** External Advisory Board Meeting, scientific advisor- Penn State Hershey Cancer Institute- Hershey PA; *November 7-8, 2016*

39. **Barber, GN.** Special Immunology Lectures for Medical and Graduate Students- Chulalongkorn University- Center of Excellence in Imminology and Immune-mediated Diseases, Department of Microbiology, Faculty of Medicine
Bangkok, Thailand; *Jan. 9-13, 2017*

40. **Barber, GN.** 18th International Conference on Human Retrovirology, HTLV and Related Viruses, Tokyo, Japan; *March 7-10, 2017*

41. **Barber, GN.** Innate Immune Signaling in Cancer: New Concepts. Invited primary speaker, AACR, American Association for Cancer Research, Washington, DC; *April 1-5, 2017*

42. **Barber, GN.** Sting and Viral Infections. XII Advanced Course on HIV Pathogenesis, Sao Paulo, Brazil; *March 29- April 5, 2017*

43. **Barber, GN.** 14th Herrenhausen Symposium on Immunotherapy- Nature Biotech Lecture, Hannover, Germany; *May 8-9, 2017*

44. **Barber, GN.** Sting Controlled Innate Immune Signaling in Infection, Inflammation, and Cancer. Mayo Clinic – Molecular Medicine Seminar Series, Rochester, MN; *May 25, 2017*

45. **Barber, GN.** STING: Role in Infection, Inflammation, and Cancer. Invited speaker, 7th Annual National Congress on HIV and Related Viruses, Salvador·Bahia, Brazil; *August 3-5, 2017*

46. **Barber, GN.** Activation of the cGAS – STING Signaling Pathway and Innate Immunity in Response to Cysosolic DNA. Invited speaker, NIH National Cancer Institute, Rockville, MD; *August 16-17, 2017*

47. **Barber, GN.** Innate Immune Signaling, STING and Enhancing the Immune Response. Invited speaker, Cambridge Healthtech Institute 5th Annual Immuno-Oncology Summit, Boston, MA; *August 28 – September 1, 2017*

48. **Barber, GN.** Innate Immune Regulation and HTLV-1 – New Concepts for Vaccines and Therapeutics. Invited speaker, XIII International Symposium of HTLV, Salvador-Bahia, Brazil; *September 11-13, 2017*

49. **Barber, GN.** STING – Dependant Innate Immune Signaling and Cancer Immuntherapy. Invited speaker, Prostate Cancer Foundation – Annual Scientific Retreat, Washington, DC; *October 5-6, 2017*

50. **Barber, GN.** Research Advisory Board at Chiba University (site visit). Invited speaker, Chiba University Annual Scientific Forum – Chiba, Japan; *October 27-28, 2017*

51. **Barber, GN.** STING Controlled Innate Immunity; Infectious Disease, Inflammation, and Cancer. Invited speaker, 5th Annual Meeting of the International Cytokine and Interferon Society (ICIS 2017) – Kanazawa, Japan; *October 29- November 2, 2017*

52. **Barber, GN.** STING Controlled Innate Immunity; Infectious Disease, Inflammation, and Cancer. Invited speaker, International Symposium on the 50th Anniversary of Chungnam National University College of Medicine – Daejeon, South Korea; *November 6-7, 2017*

53. **Barber, GN.** STING Controlled Innate Immunity; Infectious Disease, Inflammation, and Cancer. Invited speaker, The Korean Association of Immunologists, KAI Meeting 2017 – Seoul, South Korea; *November 8-10, 2017*

54. **Barber, GN.** External Advisory Board Meeting, scientific advisor- Penn State Hershey Cancer Institute- Hershey PA; *November 29-30, 2017*

55. **Barber, GN.** Special Immunology Lectures for Medical and Graduate Students- Chulalongkorn University- Center of Excellence in Imminology and Immune-mediated Diseases, Department of Microbiology, Faculty of Medicine
Bangkok, Thailand; *Jan. 15-19, 2018*

56. **Barber, GN.** Perspectives of Vaccine Against HTLV-1, 50 Años Instituto De Medicina Tropical – Universidad Peruana Cayetano Heredia. Lima, Peru: *March 23-24, 2018*

57. **Barber, GN.** XIII Curso Avancado de Patogenese do HIV (XIII Advanced Course on HIV Pathogenesis) – University of Sao Paulo School of Medicine. Invited speaker, "Innate Immunity and Viral Infections". Sao Paulo, Brazil; *April 5-11, 2018*

58. **Barber, GN.** International Oncolytic Virus Conference. Invited Speaker. Oxford, UK; *April 9-12, 2018.*

59. **Barber, GN.** DFG – German Research Foundation panel for Clusters of Excellence "EXStra_2018/1_LW16_cell biology, neurobiology and immunology" (EXC2151 "ImmunoSensation – the immune sensory system" University of Bonn) Frankfurt, Germany; *April 18-20, 2018*