BIOGRAPHICAL SKETCH

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NAME: Peter Farnum Wright

eRA COMMONS USER NAME (credential, e.g., agency login): WRIGHTPF

POSITION TITLE: Professor of Pediatrics Geisel School of Medicine at Dartmouth

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Trustees of Dartmouth College, Hanover, NH	BA	06/1964	Biology
Harvard Medical School, Boston, MA	MD	06/1967	Medicine

A. **Personal Statement**

I have worked with vaccines since the initiation of my research career at the NIH. One particular focus has been on vaccines for the prevention of viral respiratory disease. RSV has been an abiding interest since starting at NIH where we initiated work on temperature-sensitive mutants as potential live-attenuated vaccine candidates. These progressed to a series of trials in infants and young children which defined the significant protection afforded by prior infection, the optimal level of attenuation, and the importance of genetic stability. Using cohorts of children at Vanderbilt and Dartmouth we defined the clinical impact of RSV in normal, otherwise healthy children. We have demonstrated that primary epithelial cells derived from adenoids are a surrogate for predicting attenuation and replication in young children and shared in the demonstration of the human pathology associated with RSV.

Another interest grew out of a sabbatical year at the World Health Organization establishing the capacity within the Expanded Programme on Immunization to assess the introduction of new vaccines into the EPI, a precursor of the GAVI effort. During that year I looked at the performance of polio vaccine in the developing country setting, and I assessed the impact of the effort to eradicate polio. I more recently served as a long-standing chair of the Polio Research Committee for WHO and in that capacity directed the research supportive of the eradication effort.

Both of these interest have coalesced into in-depth studies of the mucosal immune system. With support from the Gates Foundation we have successfully developed a mucosal neutralization test for polio that predicts inhibition of recovery of virus and influences the thinking about choices of inactivated or live, oral vaccine. The nature of this protection is clearly IgA and an immune system can be defined that is separate and distinct from humoral immunity. Working with Dr. Ackerman and Lee's groups we are taking this interest in mucosal immunity into the field of COVID-19 and influenza in documenting the height and duration of mucosal responses to natural infection and vaccines.

Ongoing and recently completed research that I would like to highlight include:

Gates Foundation ID INV-010629 (formerly OPP1104756)
Wright (PI)
10/1/18-6/30/24
Mucosal Immunity in Polio: Dartmouth Assay for Lat Am Clinical Trials

UM1AI069421-17
Pape (PI); Role: Subrecipient PI
10/1/18-11/30/23
GHESKIO Clinical Trial Unit

PATH GAT.2255-01707445-CTA
Wright (PI)
5/13/21-8/31/23
A First-in-Human, Phase 1, Randomized, Observer-blind, Controlled Study to Assess the Safety and Immunogenicity of Novel Live Attenuated Type 1 and Type 3 Oral Poliomyelitis Vaccines in Healthy adults

B. Positions and Honors

2008 - present	Professor of Pediatrics, Geisel School of Medicine, Dartmouth College
	Distinguished alumni of Dartmouth Medical School – 2017 Clinical Research Faculty Research Award Vanderbilt – 2006 Stanley A. Plotkin Award in Vaccinology – 2017
2005 - 2008	Shedd Professor of Pediatric Infectious Diseases, Vanderbilt University School of Medicine
2001 - 2008	Professor of Pathology, Department of Pathology, Vanderbilt University School of Medicine
2001 - 2008	Professor, Department of Microbiology and Immunology, Vanderbilt University School of Medicine
1995 - 2005	Director, Center for International Health, Vanderbilt
1985 - 2008	Professor, Department of Pediatrics, Vanderbilt University School of Medicine
1979 - 1985	Associate Professor, Department of Pediatrics, Vanderbilt University School of Medicine
1975 - 2008	Chief, Division of Infectious Disease, Department of Pediatrics, Vanderbilt University School of Medicine
1975 - 1991	Assistant Professor, Department of Microbiology, Vanderbilt University School of Medicine
1975 - 1979	Assistant Professor, Department of Pediatrics, Vanderbilt University School of Medicine
1972 - 1974	Research Fellow, Division of Infectious Disease, Department of Pediatrics, Children's Hospital Medical Center, Boston, MA
1971 - 1972	Resident, Department of Pediatrics, Children's Hospital Medical Center, Boston, MA
1968 - 1971	Staff Associate, Laboratory of Infectious Disease, National Institute of Allergy and Infectious Disease, National Institute of Health, Bethesda, MD
1967 - 1968	Resident, Department of Pediatrics, Children's Hospital Medical Center, Boston, MA

C. Contributions to Science

Over 350 published articles in the fields of virology, vaccinology and immunology. Significant contributions to science include:

A) Derivation and clinical assessment of live, attenuated, temperature sensitive intranasally delivered respiratory syncytial virus vaccines. Work begun in 1968 has led to a continuous thread of RSV vaccine development culminating in the licensure of vaccines for the elderly and pregnant women (to prevent disease in the newborn. The first report of successful attenuation was a paper Gharpure MA, Wright PF, Chanock RM.Temperature-sensitive mutants of respiratory syncytial virus.J Virol. 1969 Apr;3(4):414-21.

B) Time spent at the Expanded Programme on Immunization, World Health Organization assessing the impact and feasibility of of introducing new vaccines into the global vaccine initiative. This was a precursor of the Gavi –the global vaccine alliance. A representative publication: G F Hayden 1, P A Sato, P F Wright, R H Henderson. Progress in worldwide control and elimination of disease through immunization. J Pediatr . 1989 Apr;114(4 Pt 1):520-7.

C) Defining the differences in induction of immunity between Oral Polio Vaccine (OPV) and Inactivated Polio Vaccine(IPV) which is altering the use of polio vaccine in the Global Polio Eradication Initiative. Wright PF, Connor RI, Wieland-Alter WF, Hoen AG, Boesch AW, Ackerman ME, Oberste MS, Gast C, Brickley EB, Asturias EJ, Rüttimann R, Bandyopadhyay AS Vaccine-induced mucosal immunity to poliovirus: analysis of cohorts from an open-label, randomised controlled trial in Latin American infants. Lancet Infect Dis. 2016 Dec;16(12):1377-1384.

D) Coordinated the determination of optimal dosing of influenza vaccines in children in the face of the anticipated 1976 swine influenza epidemic Wright PF, Thompson J, Vaughn WK, Folland DS, Sell SH, Karzon DT. Trials of influenza A/New Jersey/76 virus vaccine in normal children: an overview of age-related antigenicity and reactogenicity.J Infect Dis. 1977 Dec;136 Suppl:S731-41

E) Work over 40 years in Haiti with GHESKIO in definition of impact of infectious disease in a poor developing country examples include: 1) Jean SS, Reed GW, Verdier RI, Pape JW, Johnson WD, Wright PF.Clinical manifestations of human immunodeficiency virus infection in Haitian children. Pediatr Infect Dis J. 1997 Jun;16(6):600-6. 2) Rouzier V, Severe K, Juste MAJ, Peck M, Perodin C, Severe P, Deschamps MM, Verdier RI, Prince S, Francois J, Cadet JR, Guillaume FD, Wright PF, Pape JW. Cholera vaccination in urban Haiti. Am J Trop Med Hyg. 2013 Oct;89(4):671-681