# Helen Keipp Bredenberg Talbot MD, MPH, FIDSA

# **OFFICE**

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# **EDUCATION**

1990 – 1995	University of Illinois, Urbana-Champaign, IL: Bachelor of Science, Ceramic Engineering,	
	Bachelor of Science, Physiology, and Minor, Bioengineering	
1995 – 1999	Medical College of Georgia, Augusta, GA: Doctor of Medicine	
2005 - 2007	Vanderbilt University School of Medicine, Nashville, TN: Masters in Public Health	
2008	Advanced Vaccinology Course, Fondation Mérieux, Veyrier du Lac, France	
<b>TRAINING</b>		
1999 - 2002	Vanderbilt University: Internship and Residency, Department of Medicine	
2003 - 2006	Vanderbilt University: Infectious Disease Fellowship, Department of Medicine	
LICENSURE & CERTIFICATION		
•	State of Tennessee, License No. 36606	
	American Board of Internal Medicine, Internal Medicine, Certification Number 214791	
2007 - present	American Board of Internal Medicine, Infectious Diseases, Certification Number 214791	
ACADEMIC APPOINTMENTS		
2002 - 2003	Hugh Jackson Morgan Chief Resident, Department of Medicine, Vanderbilt University	
2006 - 2008	Instructor of Medicine, Division of Infectious Diseases, Vanderbilt University, Nashville, TN	
2008 - 2016	Assistant Professor of Medicine, Division of Infectious Diseases, Vanderbilt University	
	Associate Professor of Medicine, Division of Infectious Diseases, Vanderbilt University	
2017 – Present	Associate Professor of Health Policy	

# PROFESSIONAL ORGANIZATIONS

Infectious Disease Society of America

International Society for Influenza and other Respiratory Virus Diseases

# HONORS AND AWARDS

2005 - 2007	Awardee, NIH Clinical Research Loan Repayment Program,
2005	Outstanding Fellow Award, Vanderbilt University, Division of Infectious Diseases,
2005 - 2008	Awardee, Vanderbilt Mentored Clinical Research Scholar Program,
2008	Awardee, National Foundation for Infectious Diseases/Sanofi Pasteur Advanced Vaccinology
	Course Travel Grant
2009	Young Investigator Award in Geriatrics by the Association of Specialty Professors-Infectious
	Diseases Society of America
2010	Maurice R. Hilleman Early-stage Career Investigator Award by National Foundation for
	Infectious Diseases
2014	Elected Fellow, Infectious Disease Society of America

# PROFESSIONAL ACTIVITIES

# INTRAMURAL: (PAST)

Member, Elliot Newman Career Development Society 2006 - 2013

Member, Women on Track 2008 - 2013 2013 - 2016 Member, Neilson Society

#### INTRAMURAL: (PRESENT)

2012 - present Invited Expert VICTR Studios (04/02/2013 - Choudry; 08/21/2013 - Pilkinton)

2013 - present Chair, Infectious Diseases Fellowship Oversight Committee 2015 - present Member, Division of Infectious Diseases Clinical Committee

2015 - present Infectious Diseases Resident Research Liaison

#### EXTRAMURAL (PAST):

2017

EXTRAMURAL (PAST):		
2009	Veterans Affairs Biomedical Research Integrated Review Group, Infectious Diseases A, Ad Hoc	
	Committee Member	
2013, 2015	Geriatric Society of America, Annual Meeting Proposal Reviewer	
2013	NIAID Special Emphasis Panel Grant Reviewer (ZAI1 LAR-I (S1))	
2013	Jahnigen/Williams (Aging Research in Subspecialty Awards) Grantee Leadership Retreat	
	Organizing Committee	
2013	Alliance for Aging: Silver Book: Infectious Diseases and Prevention through Vaccination	
	Congressional Briefing December 3, 2013; NFID Representative and Speaker	
2013 - 2015	Infectious Disease Board Review Course Invited Faculty on Adult Immunizations	
2013 - 2016	National Foundation for Infectious Diseases and Infectious Diseases Society of America Joint	
	Research Awards Grant Reviewer	
2015	Ireland Health Research Board, Guest Peer Reviewer	
2016	Guest Reviewer for NIH/IRAP study section	
2013 - 2016	Infectious Diseases Society of America, Public Health Committee Member	
2017	NCIRD Special Emphasis Panel ZIP1 GCA(31) R	
2017	National Immunization Conference External Planning Committee Member	

# EXTRAMURAL (PRESENT):

2007 - present Infectious Diseases Society of America, Geriatrics Working Group Member

2013 - present National Foundation for Infectious Diseases, Annual Conference on Vaccine Research, Abstract Reviewer

2013 – present Vaccine – Editorial Council of 100

2013 – present Annual Conference on Vaccine Research Abstract Reviewer

PSI Foundation External Peer Review, Canada

2015 - present Advanced Vaccinology Course (International two-week training program) Planning Committee

2016 – present National Foundation for Infectious Diseases Awards Committee

2016 - 2019Annual Conference on Vaccine Research Executive Planning Committee

2016 IDWeek Abstract Reviewer

2016 - 2019**IDWeek Planning Committee Member** 

# EXTRAMURAL (LEADERSHIP):

2012 - present Board of Directors, National Foundation for Infectious Diseases

2016 - present Chair of Continuing Professional Education Committee, National Foundation for Infectious Diseases

### PEER REVIEW:

Academic Pediatrics, American Journal of Preventive Medicine, American Journal of Transplantation, Annals of Medicine, BMJ Open, Clinical Infectious Diseases, Drugs and Aging, JAMA, Journal of the American Geriatrics Society, Journal of Infectious Diseases, Journal of Medical Virology, The Pediatric Infectious Disease Journal, PlosONE, Vaccine

### **TEACHING**

# MEDICAL SCHOOL COURSE:

2008 - 2012 Lecturer, "The Complexities of Adult Vaccinations Using Pneumococcus as an Example,"

Vanderbilt University School of Medicine Preventive Medicine Course for Second Year Medical

Students

2017 Lecturer, "Immunizations in Aging Adults" ID & Aging: Med School ISC course

# MASTERS of PUBLIC HEALTH

2013- present Lecturer, "Influenza Surveillance Programs"

#### RESIDENCY EDUCATION:

2008 - present Lecturer, "Adult Vaccinations," Ambulatory Medicine Core Curriculum Lecture, Department of

Medicine Residency Program

#### POSTGRADUATE EDUCATION:

2007 Lecturer, "Influenza and the Older Adult" Vanderbilt Geriatrics and Gerontology Interest Group

2011- present Lecturer, "Adult Vaccinations" Infectious Diseases Fellowship Program

2013 Lecturer, "An Update on Influenza Vaccines" Infectious Diseases Grand Rounds

# RESEARCH SUPERVISION:

**Undergraduate Students:** 

Joseph Strawn (Pipline program)
 Allison Harper (Pipline pogrome)

#### Medical Student:

2014-2015 Sophie Zhao

#### Residents:

2012 – present Ryan Dare MD

2012 – 2014 Chad Tewell MD 2015 – 2017 Natalie Nesmith MD

2016 – present Lauren Hartman MD

2017 – present Shannon Kelley MD

Infectious Disease Fellows:

2010-2012 Kyle Widmer MD 2016-2017 Kelsey Ivey MD 2017-2018 David Dobrynski MD

#### **MENTORING COMMITTEES:**

#### Fellows:

2011 – 2012 Anna Hart MD, Infectious Diseases Fellow

2013 – 2014 Andrea Zimmer MD, Infectious Diseases Fellow

2013 – 2014 Victoria Burke MD, Infectious Diseases Fellow

2014 – 2015 Kevin Dee MD, Infectious Diseases Fellow; chair of committee

#### Faculty:

2015 - present Jesse Castilho, Infectious Diseases Assistant Professor

# RESEARCH PROGRAM

#### **CURRENT**

### FEDERAL GRANTS, PRINCIPAL INVESTIGATOR

- 2015 PI, CDC/Abt, Pandemic Preparedness Planning for Outpatient Influenza Surveillance \$50,000 (Direct and Indirects)
- 2015 2020 PI, CDC 1U01IP000979-01, US Platform to Measure Influenza Vaccine Effectiveness against Laboratory-Confirmed Influenza-Associated \$2,100,000 (Directs and Indirects)
- 2017 2020 Co-PI, CDC U01IP001083, Household Transmission of Influenza Viruses in the Community

#### FEDERAL GRANTS. INVESTIGATOR

- 2015 2021 Investigator, CDC/Emerging Infections Program, Local Principal Investigator for Influenza, Respiratory Syncytial Virus, and Streptococcus Pneumoniae.
- 2016 2021 Executive Committee Member and Investigator, NIH/NHLBI U01HL130163, INfluenza Vaccine to Effectively Stop Cardio Thoracic Events and Decompensated Heart Failure (INVESTED)

#### PHARMACEUTICAL FUNDING

- 2013 2018 Local PI, Phase III, Efficacy, Immunogenicity, and Safety Study of *Clostridium difficile* Toxoid Vaccine in Subjects at Risk for *C. difficile* Infection. Contract: Sanofi Pasteur
- 2018 2019 Coordinating Investigator, Phase III, Safety and Immunogenicity of a Quadrivalent High Dose Influenza Vaccine, Contract: Sanofi Pasteur

#### **PRIOR**

#### FEDERAL GRANTS, PRINCIPAL INVESTIGATOR

- 2007 2009 NIH/NIAID R03, Epidemiology of Human Coronaviruses, Transferred to John V. Williams MD, March 2008 (when K23 awarded)
- 2008 2012 NIH/NIAID K23, Adult Flu Hospitalizations: Evaluating Diagnostic Methods and Vaccine Effectiveness
- 2013 2016 PI, NIH/NIA R01, Effectiveness of the Influenza Vaccine in the Aging Population \$205,000 (Direct);
- 2015 2017 PI, NIH/NIAID R03, Hospital Admissions & Emergency Room Visits in Adults Associated with Influenza C \$50,000 (Direct/year)

# FEDERAL GRANTS, INVESTIGATOR

- 2006 2008 NIAID DMID Vaccine Trial and Evaluation Unit, Protocol N01-AI-25462, "Influenza Infections in Adults" Local PI: Kathryn Edwards, MD
- 2006 2008 NIAID DMID Vaccine Trial and Evaluation Unit, Protocol N01-AI-25462, "Epidemiology of Human Coronavirus, Local PI: James Crowe, MD.

2008 – 2011 CDC U1, Annual Estimates of Influenza Vaccine Effectiveness, Local PI: Marie Griffin, MD MPH

2015 – 2015 CDC, Clinical Immunization Safety Assessment (CISA), Safety of the High Dose Influenza vaccine compared to the Standard Dose Vaccine, Local PI: Kathryn Edwards MD

#### FOUNDATION GRANTS

2009 – 2011 Young Investigator Award in Geriatrics by the Association of Specialty Professors-Infectious Diseases Society of America

### PHARMACEUTICAL FUNDING

- 2007 2008 Local PI, Phase III, Evaluation of the novel influenza vaccine Flublok, Contract: Protein Sciences
- 2008 2010 Local PI, Phase III, Randomized, Active-Controlled, Modified Double-Blinded Trial, Evaluating the Safety, Tolerability and Immunogenicity of a 13-valent Pneumococcal Conjugate Vaccine, Contract: Wyeth
- 2009 2010 Principal Investigator, Phase I/II, A multicenter, doubled-blinded, randomized, placebo controlled study to investigate the safety and immunogenicity of VAX 102 when given in the same arm with the standard influenza vaccine in healthy adults, Contract: VaxInnate
- 2009 2010 Coordinating Investigator & Local PI, Phase IIIb, Multi-Year Efficacy Study of Fluzone High-Dose Trivalent Vaccine Compared with Fluzone® Vaccine In Adults 65 Years of Age and older (FIM07). Contract: Sanofi Pasteur
- 2010 2011 Coordinating Investigator & Local Principal Investigator, Safety and Immunogenicity Trial Among Adults Administered Quadrivalent Influenza Vaccine, Contract: sanofi Pasteur
- 2011 2013 Coordinating Investigator & Local Principal Investigator, Multi-Year Efficacy Study of Fluzone High-Dose Trivalent Vaccine Compared with Fluzone® Vaccine in Adults 65 Years of Age and older (FIM12). Contract: Sanofi Pasteur
- 2012 2015 Local PI, An Observational Study to Assess Respiratory Syncytial Virus (RSV)-associated Illness in Adults with Chronic Obstructive Pulmonary Disease and /or Congestive Heart Failure Contract: MedImmune/AstraZeneca
- 2014 2015 Coordinating and Local PI, Phase Ib, A Phase 1b Study to Evaluate the Safety of MEDI7510 in Older Adults. Contract: MedImmune
- 2015 2016 Coordinating and Local PI, Phase III, Immunogenicity and Reactogenicity of a Quadrivalent High Dose Influenza Vaccine, Contract: Sanofi Pasteur
- 2013 2016 Co-Investigator, Phase IV, A Case Control Study of the Effectiveness of Q/LAIV Versus Inactivated Influenza Vaccine and No Vaccine in Subjects 2-17 Years of Age. Contract: MedImmune
- 2014 2016 Coordinating and Local PI, Phase Ib, Study to Evaluate the Safety and Immunogenicity of MDI7510 in Older Adults. Contract: MedImmune.
- 2015 2016 Local PI, Phase 2b, Randomized, Double-blind Study to Evaluate the Efficacy of MEDI7510 for the Prevention of Acute Respiratory Syncytial Virus-associated Respiratory Illness in Older Adults. Contract: MedImmune

2014 – 2017 Local PI, Phase 2b, Randomized, Double-Blind, Placebo-Controlled Multi-Center Study Evaluating Antiviral Effects, Pharmacokinetics, Safety, and Tolerability of GS-5806 in Hospitalized Adults with Respiratory Syncytial Virus (RSV) Infection. Contract: Gilead.

#### **PUBLICATIONS & PRESENTATIONS**

#### ORIGINAL INVESTIGATIONS

- 1. Ostrowsky BE, Whitener C, **Bredenberg HK**, Carson LA, Holt S, Hutwagner L, Arduino MJ, Jarvis WR. *Serratia Marcescens* Bacteremia Traced to an Infused Narcotic. *New England Journal of Medicine*; 346:1529-37, 2002.
- 2. Talbot TR, **Bredenberg HK**, Smith M, LaFleur BJ, Boyd A, Edwards KM. Focal and Generalized Folliculitis Following Smallpox Vaccination among Vaccinia-Naïve Recipients. *JAMA*; 289:3290-4, 2003.
- 3. Baker SC, Shimizu C, Shike H, Garcia F, van der Hoek L, Kuijper TW, Reed SL, Rowley AH, Shulman ST, **Talbot HK**, Williams JV, Burns JC Human coronavirus-NL63 infection is not associated with acute Kawasaki disease. *Advances in Experimental Medicine and Biology*. 2006; 581:523-6.
- Shimizu C, Shike H, Baker SC, Garcia F, van der Hoek L, Kuijpers TW, Reed SL, Rowley AH, Shulman ST, Talbot HKB, Williams JV, Burns JC. Human Coronavirus NL63 is Not Detected in the Respiratory Tract of Children with Acute Kawasaki Disease. *Journal of Infectious Diseases* 2005; 192(10):1767-71.
- 5. Bernstein DI, Edwards KM, Dekker CL, Belshe R, **Talbot HK**, Graham IL, Noah DL, He F, Hill H. Effects of Adjuvants on the Safety and Immunogenicity of an Avian Influenza (H5N1) Vaccine in Adults. *Journal of Infectious Diseases* 2008; 197(5):667-675.
- 6. **Talbot HK**, Keitel W, Cate TR, Treanor J, Campbell, J, Brady RC, Graham I, Dekker CL, Ho D, Winokur P, Walter E, Bennet J, Formica N, Hartel G, Skeljo M, Edwards KM. Immunogenicity, Safety and Consistency of New Trivalent Inactivated Influenza Vaccine. *Vaccine* 2008; 26(32): 4057-61.
- 7. **Talbot HK**, Crowe JE, Edwards KM, Griffin MR, Zhu Y, Weinberg GA, Szilagyi PG, Hall CB, Podsiad AB, Iwane M, Williams JV. Coronavirus Infection and Hospitalization for Acute Respiratory Illness in Young Children. *Journal of Medical Virology* 2009; 81(5):853-856.
- 8. **Talbot HK**, Shepherd BE, Crowe JE, Griffin MR, Edwards KE, Podsiad AB, Tollefson SJ, Wright PF, Williams JV. The Pediatric Burden of Human Coronaviruses Evaluated for Twenty Years, *Pediatric Infectious Diseases Journal* 2009; 28(8) 682-7.
- 9. Poehling KA, **Talbot HK**, Williams JV, Zhu Y, Lott J, Patterson L, Edwards KM, Griffin MR. Impact of a School-based Influenza Immunization Program on Disease Burden: Comparison of Two Tennessee Counties. *Vaccine* 2009; 27(10):2695-2700.
- 10. **Talbot HK**, Poehling KA, Williams JV, Zhu Y, Chen Q, McNabb P, Edwards KM, Griffin MR. Influenza in Older Adults: Impact of Vaccination of School Children. *Vaccine* 2009; 27(13):1923-7.
- 11. Keitel WA, Dekker CL, Mink CA, Campbell JD, Edwards KM, Patel SM, Ho DY, **Talbot HK**, Guo K, Noah DL, Hill H. Safety and Immunogenicity of Inactivated, Vero Cell Culture-Derived Whole Virus Influenza A/H5N1 Vaccine Given Alone or with Aluminum Hydroxide Adjuvant in Healthy Adults: *Vaccine* 2009; 27(47):6642-8.

12. **Talbot HK**, Williams JV, Zhu Y, Poehling KA, Griffin MR, Edwards KM. Routine Diagnostic Methods Fail to Identify Influenza in Hospitalized Older Adults. *Infection Control and Hospital Epidemiology* 2010; 31(7): 683-8.

- 13. **Talbot HK**, Rock MR, Johnson C, *et al*. Immunopotentiation of Trivalent Influenza Vaccine When Givien with VAX102, a Recombinant Influenza M2e Vaccine Fused to the TLR5 Ligand Flagellin. *PLoS ONE* 2010; 5(12):e14442.
- 14. **Talbot HK**, Griffin MR, Chen Q, Zhu Y, Williams JV, Edwards KE. Effectiveness of Seasonal Vaccine in Preventing Confirmed Influenza-Associated Hospitalizations Community Dwelling Older Adults. *Journal of Infectious Diseases* 2011; 203(4):500-8.
- 15. Bordelon H, Adams NM, Klemm AS, Russ PK, Williams JV, **Talbot HK**, Wright DW, Haselton FR. Development of a low-resource RNA extraction cassette based on surface tension valves. *ACS Applied Materials and Interfaces*, 2011: 3(6):2161-8.
- 16. Griffin MR, Monto AS, Belongia EA, Treanor JJ, Chen Q, Chen J, Talbot HK, Ohmit SE, Coleman LA, Lofthus G, Petrie JG, Meece JK, Hall CB, Williams JV, Gargiullo P, Berman L, Shay DK. Effectiveness of Non-adjuvanted Pandemic Influenza A Vaccines for Preventing Pandemic Influenza Acute Respiratory Illness Visits in 4 US Communities. *PLoS ONE*, 2011; 6(8):e23085.
- 17. Prill MM, Iwane MK, Edwards KM, Williams JV, Weinberg GA, Staat MA, Willby MJ, **Talbot HK**, Hall CB, Szilagyi PG, Griffin MR, Curns AT, Erdman DD. Human Coronavirus in Young Children Hospitalized with Acute Respiratory Illness and Asymptomatic Controls. *Pediatric Infectious Diseases Journal*, 2012; 31(3):235-40.
- 18. Widmer K, Zhu Y, Williams JV, Griffin MR, Edwards KM, **Talbot HK**. Rates of Hospitalizations for Respiratory Syncytial Virus, Human Metapneumovirus, and Influenza in Older Adults. *Journal of Infectious Diseases*, 2012; 206(1):56-62.
- 19. Jules A, Grijalva CG, Zhu Y, **Talbot HK**, Williams JV, Edwards KM, Schaffner W, Shay D, Griffin MR. Estimating age-specific influenza-related hospitalization rates during the pandemic (H1N1) 2009 in Davidson Co, TN. *Influenza and Other Respiratory Viruses*, 2012; 6(3):e63-71.
- 20. Self WH, Grijalva CG, Zhu Y, **Talbot HK**, Jules A, Widmer KE, Edwards KM, Williams JV, Shay DK, Griffin MR. Emergency Department Visits for Influenza A(H1N1)pdm09, Davidson county, Tennessee, USA. *Emerging Infectious Diseases*, 2012; 18(5):863-5.
- 21. **Talbot HK**, Coleman LA, Crimin K, Zhu Y, Rock MT, Meece J, Shay DK, Belongia EA, Griffin MR. Association between obesity and vulnerability and serologic response to influenza vaccination in older adults. *Vaccine*, 2012; 30(26):3937-43.
- 22. Klemenc JM; Ali SA; Johnson M; Tollefson SJ; **Talbot HK**; Hartert TV; Edwards KM; Williams JV. Real-Time Reverse Transcriptase PCR Assay for Improved Detection of Human Metapneumovirus. *Journal of Clinical Virology*, 2012; 54(4):371-5.
- 23. Treanor J, **Talbot HK**, Ohmit SE, Coleman LA, Thompson MG, Chen PY, Petrie JG, Lofthus G, Meece JK, Williams JV, Berman L, Hall CB, Monto AS, Griffin MR, Belongia E, Shay DK. Effectiveness of Seasonal Influenza Vaccines in the United States During a Season with Circulation of all Three Vaccine Strains, *Clinical Infectious Diseases*, 2012; 55(7):951-9..

24. Self WH, McNaughton CD, Grijalva CG, Zhu Y, Chappell JD, Williams JV, **Talbot HK**, Shay DK, Griffin MR. Diagnostic Performance of the BinaxNow Influenza A&B Rapid Antigen Test in ED Patients. *American Journal of Emergency Medicine*, 2012; 18(5): 863-865.

- 25. DiazGranados CA, Dunning AJ, Jordanov E, Landolfi V, Denis M, **Talbot HK**. High-Dose Trivalent Influenza Vaccine Compared to Standard Dose Vaccine in Elderly Adults: Safety, Immunogenicity and Relative Efficacy during the 2009-2010 Season Vaccine. *Vaccine*, 2013; (31)6:861-6.
- 26. Sundaram ME, **Talbot HK**, Zhu Y, Griffin MR, Spencer S, Shay DK, Coleman, LA. Vitamin D is not associated with serologic response to influenza vaccine in adults over 50 years old. *Vaccine*, 2013; 31(16):2057-61
- 27. Esbenshade JC, Edwards KM, Esbenshade AJ, Rodriguez VE, **Talbot HK**, Joseph MF, Nwosu SK, Chappell JD, Gern JE, Williams JV, Talbot TR. Respiratory Virus Shedding in a Cohort of On-Duty Healthcare Workers Undergoing Prospective Surveillance. *Infection Control and Hospital Epidemiology*, 2013; 34(4):373-8.
- 28. **Talbot HK**, Zhu Y, Chen Q, Williams JV, Thompson M, Griffin MR. Effectiveness of influenza vaccine for preventing laboratory-confirmed influenza hospitalizations in adults, 2011-2012 influenza season. *Clinical Infectious Diseases*, 2013; 56(12):1774-7.
- 29. Widmer K, Griffin MR, Zhu Y, Williams JV, **Talbot HK**. RSV- and HMPV-associated Emergency Department and Hospital Burden in Adults. *Influenza and Other Respiratory Viruses*, 2014; 8(3):347-52.
- 30. DiazGranados CA, Dunning AJ, Kimmel M, Kirby D, Treanor J, Collins A, Pollak R, Christoff J, Earl J, Landolfi V, Martin E, Gurunathan S, Nathan R, Greenberg DP, Tornieporth NG, Decker MD, **Talbot HK**. Efficacy of high-dose versus standard-dose influenza vaccine in older adults. *N Engl J Med*. 2014; 371(7):635-45.
- 31. Jules A, Grijalva CG, Zhu Y, **Talbot HK**, Williams JV, Edwards KM, Shay DK, Schaffner W, Griffin MR. Age-Specific Influenza- Related Emergency Department Visits and Hospitalizations in 2010-2011 Compared with the Pandemic Year 2009-2010. Infectious Diseases in Clinical Practice. 2014; 22(5): 271-278.
- 32. Tewell C, Wright PW, **Talbot HK**. Provider Knowledge of Standard and High-Dose Influenza Vaccines. *Vaccine*, 2014; 32(46):6025-8.
- 33. Chen Q, Griffin MR, Nian H, Zhu Y, Williams JV, Edwards KM, **Talbot HK**. Influenza Vaccine Prevents Medically-Attended Influenza-Associated Acute Respiratory Illness in Adults 50 Years or Older. *Journal of Infectious Diseases*, 2015; 211(7):1045-50.
- 34. Jules A, Grijalva C, Zhu Y, **Talbot HK**, Williams JV, Chaves S, Poehling K, Edwards KM, Schaffner W, Shay D, Griffin MR. Influenza-Related Hospitalization and ED visits in children less than 5 years: 2000-2011. *Pediatrics*, 2015; 135(1):e66-74.
- 35. **Talbot HK**, Nian H, Zhu Y, Chen Q, Williams JV, Griffin MR. Clinical Effectiveness of Split-Virion compared to Subunit Trivalent Influenza Vaccines in Older Adults. *Clinical Infectious Diseases*, 2015; 60(8):1170-5.
- Lindegren ML, Griffin MR, Williams JV, Edwards KM, Zhu Y, Mitchel E, Fry A, Schaffner, Talbot HK.
   Antiviral Treatment among Older Adults Hospitalized with Influenza, 2006-2012. PLOSOne, 2015; 10(3):e0121952.

37. **Talbot HK**, Coleman LA, Zhu Y, Spencer S, Thompson M, Cheng PY, Sundaram ME, Belongia EA, Griffin MR. Factors Associated with Maintenance of Antibody Responses to Influenza Vaccine in Older, Community-Dwelling Adults. *BMC Infectious Diseases*, 2015; 15(1):195.

- 38. Reber AJ, Kim J, Biber R, Chirkova T, Cao W, Jefferson S, Gross F, Veguilla V, Steward-Clark E, Gillis E, Meece J, Bai Y, Tatum H, Hancock K, Stevens J, Spencer S, Chen J, Gargiullo P, Braun E, **Talbot HK**, Coleman LA, Griffin MR, Belongia E, Rock M, Shay DK, Katz J, Sambhara S. Pre-existing Immunity, More than Aging, Influences Influenza Vaccine Responses, *Open Forum Infectious Diseases*, 2015; 2(2):ofv052.
- 39. DiazGranados CA, Robertson CA, **Talbot HK**, Landolfi V, Dunning AJ, Greenberg DP. Prevention of serious events in adults 65 years of age or older: a comparison between high-dose and standard-dose inactivated influenza vaccines. *Vaccine*. 2015;33(38):4988-93.
- 40. Miller EK, Linder J, Kraft D, Johnson M, Lu P, Saville BR, Williams JV, Griffin MR, **Talbot HK**. Hospitalizations and Outpatient Visits for Rhinovirus Associated Acute Respiratory Illness in Adults. *JACI*. 2016 137(3):734-43.
- 41. Caspard H, Gaglani M, Clipper L, Belongia EA, McLean HQ, Griffin MR, **Talbot HK**, Poehling KA, Peters TR, Ambrose CS. Effectiveness of Live Attenuated Influenza Vaccine and Inactivated Influenza Vaccine in Children 2 to 17 Years of Age in 2013-2014 in the United States, Vaccine. 2016; 34(1):77-82.
- 42. Chung J, Flannery B, Thompson M, Gaglani M, Jackson M, Monto A, Nowalk MP, **Talbot K**, Treanor J, Belongia E, Murthy K, Jackson L, Petrie J, Zimmerman R, Griffin M, McLean H, Fry A. Seasonal effectiveness of live attenuated and inactivated influenza vaccine, Pediatrics. 2016;137(2):e20153279.
- 43. Dunning AJ, DiazGranados CA, Voloshen T, Hu B, Landolfi VA, **Talbot HK**. Correlates of protection against influenza in the elderly: results from an influenza vaccine efficacy trial. Clin Vaccine Immunol. 2016; 23(3):228-35.
- 44. DiazGranados CA, Dunning AJ, Robertson CA, **Talbot HK**, Landolfi V, Greenberg DP. Effect of previous year vaccination on the efficacy, immunogenicity, and safety of high-dose inactivated influenza vaccine in older adults. CID, 2016 May 1; 62:1092-1099.
- 45. **Talbot HK**, Nian H, Chen Q, Zhu Y, Edwards KM, Griffin MR. Evaluating the Case-Positive, Control Test-Negative Study Design for Influenza Vaccine Effectiveness for the Frailty Bias. Vaccine, 2016; 34 (15):1806-1809.
- 46. Carlucci JG, Halasa N, Creech CB, Dulek DE, Gómez-Duarte OG, Nelson GE, **Talbot HK**, Scalise ML, Scott PL, Mahadevan U, Beaulieu DB. Vertical Transmission of Histoplasmosis Associated With Anti-Tumor Necrosis Factor Therapy. Journal of the Pediatric Infectious Disease Society. 2016; 5(2):e9-e12.
- 47. Dare R, Zhu Y, Williams JV, Griffin MR, **Talbot HK**. Influenza by Real Time RT-PCR is Not Affected by Delays in Respiratory Specimen Processing. Journal of Medical Virology. 2016;88(11):1891-5
- 48. Coleman LA, Mishina M, Thompson M, Spencer S, Reber A, Davis WG, Cheng PY, Belongia EA, **Talbot HK**, Sundaram ME, Griffin MR, Shay DK, Sambhara S. Effect of Age and Serum 25-hydroxyvitamin D on Vitamin D Receptor (VDR) Expression and Function in Peripheral Blood Mononuclear Cells, Oncotarget, 2016; 88(11):1891-5.
- 49. Chen Q, Nian H, Zhu Y, **Talbot HK**, Griffin MR, Harell FE. Too Many Covariates and Too Few Cases? A comparative Study. Statistics in Medicine, 2016; 35(25):4546-4558.

50. Pilkinton MA, Smith RM, Nicholas KJ, Yoder SM, **Talbot HK**, Kalams SA. Greater activation of peripheral T follicular helper cells following high dose influenza vaccine in older adults forecasts seroconversion. Vaccine 2017;35(2):329-336.

- 51. Zhao SR, Griffin MR, Patterson BL, Make RL, Wyatt D, Zhu Y, **Talbot HK**. Risk Factors for Outpatient Use of Antibiotics in Children with Acute Respiratory Illness. South Med J. 2017; 110(3): 172-180.
- 52. Spires SS, **Talbot HK**, Pope CA, Talbot TR. Paramyxovirus Outbreak in a Long-Term Care Facility: The Challenges of Implementing Infection Control Practices in a Congregate Setting. Infection Control & Hospital Epidemiology 2017; 1-6.
- 53. McLean HQ, Caspard H, Griffin MR, Poehling KA, Gaglani M, Belongia EA, **Talbot HK**, Peters TR, Murthy K, Ambrose CS. Effectiveness of live attenuated influenza vaccine and inactivated influenza vaccine in children during the 2014-2015 season. Vaccine, 2017; 35(20):2685-2693.
- 54. Nesmith N, Williams JV, Johnson M, Zhu Y, Griffin M, **Talbot HK**. Sensitive diagnostics confirm that influenza C is an uncommon cause of medically attended respiratory illness in adults. Clinical Infectious Diseases, 2017; 65(6)1037-1039.
- 55. Greenberg DP, Robertson CA, **Talbot HK**, Decker MD. Safety and immunogenicity of a quadrivalent influenza vaccine in adults 65 years of age and older. Human Vaccines & Immunotherapeutics, 2017; 13(9): 2058-2064.
- 56. Falloon J, **Talbot HK**, Curtis C, Ervin J, Krieger D, Dubovsky F, Takas T, Yu J, Yu L, Lambert S, Villafana T, Esser M. Dose selection for an adjuvanted respiratory syncytial virus F protein vaccine for older adults based on humoral and cellular immune responses. Clinical and Vaccine Immunology. 2017; 24(9) e00157-17.
- 57. Poehling KA, Caspard H, Peters TR, Belongia EA, Congeni B, Gaglani M, Griffin MR, Irving SA, Kavathekar PK, McLean HQ, Naleway AL, Ryan K, **Talbot HK**, Ambrose CS. 2015-2016 Vaccine Effectiveness of Live Attenuated and Inactivated Influenza Vaccines in Children in the United States. Clinical Infectious Diseases. In press 2017.
- 58. O'Neil C, Kim L, Prill MM, Stone ND, Garg S, Talbot HK, Babcock HM. Preventing Respiratory Viral Transmission in Long Term Care: Knowledge, Attitudes and Practices of Healthcare Personnel. ICHE, in press 2017.
- 59. Flannery B, Smith C, Garten RJ, Levine MZ, Chung JR, Jackson ML, Jackson LA, Monto AS, Martin ET, Belongia EA, McLean HQ, Gaglani M, Murthy K, Zimmerman R, Nowalk MP, Griffin MR, **Talbot HK**, Treanor JJ, Wentworth ED, Fry AM. Influence of Birth Cohort on Effectiveness of 2015–2016 Influenza Vaccine Against Medically Attended Illness Due to 2009 Pandemic Influenza A(H1N1) Virus in the United States. Journal of Infectious Diseases, in press 2017.

# BOOKS, BOOK CHAPTERS, AND INVITED REVIEW ARTICLES:

- 1. **Bredenberg HK**, Managan LP, Jarvis WR. Selected Hospital Infections Program Outbreak Investigations, 1994-1998. *Infection Control Today*. 1999;29-30.
- 2. **Talbot HK**, Falsey AR. The Diagnosis of Viral Respiratory Disease in the Older Adults. *Clinical Infectious Diseases*; 50(5):747-51, 2010.
- 3. **Talbot HK**, Schaffner W. Challenges in the Field of Influenza Vaccines. *US Respiratory Diseases*; 2010;5(1):63-66.

4. High KP, D'Aquila RT, Fuldner RA, Gerding DN, Halter JB, Haynes L, Hazzard WR, Jackson LA, Janoff E, Levin MJ, Nayfield SG, Nichol KL, Prabhudas M, **Talbot HK**, Clayton CP, Henderson R, Scott CM, Tarver ED, Woolard NF, and Kenneth E. Schmader. Workshop on Immunizations in Older Adults: Identifying Future Research Agendas. *Journal of the American Geriatric Society*. 2010; 58 (4):765-776.

- 5. Goins WP, **Talbot HK**, Talbot TR. Healthcare-Acquired Viral Respiratory Diseases. *Infection Control Clinics*. 2011; 25(1):227-44.
- 6. Nichol K, Monto A, **Talbot HK**, Schaffner W. Understanding the Challenge and Opportunities in Protecting Older Adults From Influenza. National Foundation for Infectious Diseases. http://www.nfid.org/pdf/publications/olderflu.pdf June 2011.
- 7. Halasa NB, **Talbot HK**. Vaccines and Antisera for the Prevention and Treatment of Infectious Diseases, Schaechter's Mechanisms of Microbial Disease Ed 5. 2013 Lippincott, Williams and Wilkins Philadelphia Chapter 45 pp 461-467.
- 8. Widmer K, **Talbot HK**. Infections in the Elderly. The Geriatrics Review Syllabus (GRS8), 8<sup>th</sup> Edition, New York, NY: American Geriatrics Society; 2013.
- 9. McElhaney JE, Zhou X, **Talbot K**, Soethout E, Bleackley C, Granville D, Pawelec G. The Unmet Need in the Elderly: How immunosenescence, CMV infection, co-morbidities and frailty are a challenge for the development of more effective influenza vaccines. *Vaccine*. 2012; 30(12):2060-7.
- 10. **Talbot HK**, Schaffner W. The United States Vaccine System and Older Adults. *Public Policy & Aging Report: Immunizations across the Aging Continuum*. 2012; 22(4): 3-6.
- 11. Talbot TR, **Talbot HK**. Influenza Prevention Update: Examining Common Arguments against Influenza Vaccination. *JAMA*. 2013; 309(9)881-2.
- 12. Pilkinton M, **Talbot HK**. Update on Vaccination Guidelines for Older Adults. *Journal of the American Geriatric Society*. 2015; 63(3):584-8.
- 13. **Talbot HK**, Belongia EA, Walsh EE, Schaffner W. Respiratory syncytial Virus in Older Adults: A Hidden Annual Epidemic. *Infectious Diseases in Clinical Practice*. 2016; 24(6):295-302.
- 14. Kim L, Rha B, Abramson JS, Anderson LJ, Byington CL, Chen, GL, DeVincenzo J, Edwards KM, Englund JA, Falsey AR, Griffin MR, Karron RA, Martin KG, Meissner HC, Munoz FM, Pavia AT, Piedra PA, Schaffner W, Simões EAF, Singleton R, **Talbot HK**, Walsh EE, Zucker JR, Gerber SI. Identifying Gaps in Respiratory Syncytial Virus Disease Epidemiology in the United States Prior to the Introduction of Vaccines. Clinical Infectious Diseases, 2017; 65(6) 1020-1025.
- 15. Talbot HK. Influenza in Older Adults. Infectious Disease Clinics of North America. 2017; 31(4) 757-766...

# **EDITORIALS**

- 1. **Talbot HK**, Schaffner W. Protecting the Elderly Against Whooping cough: Vaccinate Now. *Aging Health* 2012: 8(3) 223-224.
- 2. Grijalva CG, O'Donnell M, **Talbot HK**. Incorporating Markers of Disease Severity into Near Real-Time Influenza Surveillance. Ann Am Thorac Soc , 2017; 14(12):1766-1767.

#### LETTERS TO EDITORS

1. **Bredenberg HK**, Graham BS. Hospitalization Costs of Respiratory Syncytial Virus. *Pediatric Infectious Diseases Journal*; 20:1002-1003, 2001.

#### **ABSTRACTS**

- 1. Henry H, **Bredenberg HK**. An Uncommon Presentation of Multiple Myeloma. Poster presentation at the Annual Meeting of the Georgia Chapter, American College of Physicians, May 1998, Savannah, GA.
- 2. "A Famous Cough" Oral Case Presentation at the 2003 Annual Meeting of the Southern Society of General Internal Medicine, February 2003, New Orleans, LA.
- 3. **Talbot HK**, Hulgan T. Variation in Knowledge and Management of Acute Bacterial Sinusitis among Internal Medicine Residents. Poster presentation at the 41<sup>st</sup> Annual Infectious Diseases Society of America Meeting, October 9-12, 2003, San Diego, CA.
- 4. **Talbot HK**, Keitel W, et al. Evaluation of Australian CSL Influenza Vaccine (TIV). Poster presentation at the 45<sup>th</sup> Annual Infectious Diseases Society of America Meeting, October 4-7, 2007, San Diego, CA.
- 5. **Talbot HK**, Shepherd S, et al. Human Coronavirus Respiratory Tract Infections in Children. Poster presentation at the 45<sup>th</sup> Annual Infectious Diseases Society of America Meeting, October 4-7, 2007, San Diego, CA.
- 6. Poehling KA, **Talbot HK**, *et al.* Comparison of Pediatric Outpatient Influenza Burden in One County with School-based Vaccination Program and One Without. Platform Presentation at the 2009 Pediatric Academic Societies' Annual Meeting, May 2-5, 2009, Baltimore, MD.
- 7. **Talbot HK**, Griffin MR, *et al.* Prevention of Influenza-Associated Hospitalizations in Older Adults. Poster presentation at the 49<sup>th</sup> Annual Infectious Diseases Society of America Meeting, October 29-November 1, 2009, Philadelphia, PA.
- 8. **Talbot HK**, Mishina M, Zhu Y, Cao W, Kim J, Reber A, Griffin MR, Rock M, Shay D, Spencer S, Thompson M, Sambhara S. Cellular & Humoral Immune Responses to a High-Dose Influenza Vaccine. Poster Presentation at The Options for the Control of Influenza Meeting, September 5-10, 2013 Cape Town, South Africa.
- 9. **Talbot HK**, Chen Q, Zhu Y, Williams JV, Edwards KM, Griffin MR. Effectiveness of Influenza Vaccine for Preventing Laboratory-Confirmed Influenza Hospitalizations in Older Adults. Poster Presentation at The Options for the Control of Influenza Meeting, September 5-10, 2013 Cape Town, South Africa.
- 10. Lindegren ML, **Talbot HK**, Williams JV, Edwards KM, Zhu Y, Mitchel E, Fry A, Schaffner W, Griffin MR. Antiviral Treatment among Older Adults Hospitalized with Influenza, 2006-2012. Poster Presentation at The Options for the Control of Influenza Meeting, September 5-10, 2013 Cape Town, South Africa.
- 11. Nesmith N, Williams JV, Zhu Y, Griffin MR, **Talbot HK**. Influenza C Is not a major cause of medically attended respiratory illness in adults. Poster Presentation at the Options IX for the Control of Influenza Meeting, August 24-28, 2016 Chicago, IL.

PRESENTATIONS AT SCIENTIFIC MEETINGS PEER-REVIEWED

1. **Talbot HK**, Poehling KA, et al. Challenges in Diagnosing Influenza in Older Adults. Oral presentation at the 48<sup>th</sup> Annual Interscience Conference on Antimicrobial Agents and Chemotherapy/Infectious Disease Society of America 46<sup>th</sup> Annual Meeting, October 25-28, 2008, Washington, DC.

- 2. **Talbot HK**, Poehling KA, et al. Influenza in Older Adults: Impact of Vaccination of School Children. Oral presentation at the 48<sup>th</sup> Annual Interscience Conference on Antimicrobial Agents and Chemotherapy/Infectious Disease Society of America 46<sup>th</sup> Annual Meeting, 2008, Washington, DC.
- 3. **Talbot HK**, Rock M, *et al.* Immunopotentiation of Trivalent Influenza Vaccine When Given with a Recombinant Fusion Protein Linking Influenza M2e to the TLR5 Ligand Flagellin. Oral & Poster presentations at the Thirteenth Annual Conference on Vaccine Research 2010, Bethesda, Maryland.
- 4. **Talbot HK**, Coleman LA, *et al.* Influenza Vaccine Immunologic Correlates. Oral presentation at the American Geriatric Society Annual Scientific Meeting, 2011, Suburban Washington, DC.
- 5. **Talbot HK**, Crimin K, *et al.* Circulating Cytokine Levels and Responses to Influenza Vaccine. Oral Presentation at the Fourteenth Annual Conference on Vaccine Research 2011, Baltimore, Maryland.
- 6. **Talbot HK**, Nian H, et al. Split-Virion compared to Subunit Influenza Trivalent Influenza Vaccines Has Greater Effectiveness in Older Adults. Oral Presentation at IDWeek, 2014, Philadelphia, Pennsylvania.
- 7. **Talbot HK**, Dunning AJ, et al. Disease Modulation in Older Adults Vaccinated with High-Dose Versus Standard-Dose Influenza Vaccine. Oral Presentation at IDWeek 2014, Philadelphia, Pennsylvania.

#### BY INVITATION

- 2006 Tennessee Public Health Association Annual Meeting, Nashville, TN, "Avian Influenza Vaccine Update."
- 2006 Wake Forest University Infectious Diseases Grand Rounds Winston-Salem, NC, "Influenza in Older Adults"
- 2006 Emory University Infectious Diseases Grand Rounds, Atlanta, GA, "Influenza in Older Adults"
- 2007 Quality in Geriatric and Long-Term Care Medicine Annual Conference, Nashville, TN, "Update on Adult Immunizations"
- 2010 CDC Influenza Division International Partners and Disease Burden Meeting, Atlanta, GA "US Influenza Vaccine Studies, Serologic Studies"
- 2010 Quality in Geriatric and Long-Term Care Medicine Conference, Nashville, TN. "Diagnosis of Viral Respiratory Diseases"
- 2011 American Geriatric Society Annual Scientific Meeting 2011, Suburban Washington, DC, "Controversies in the use of Influenza Vaccine"
- 2012 Marshfield Research Foundation Medical Grand Rounds. Marshfield, WI. "Viral Respiratory Disease in Older Adults"
- 2012 Wayne State University, Division of Infectious Diseases Seminar, Detroit Michigan, "Controversies in Influenza Vaccination"
- Texas American Family Practice Meeting 2012, Houston, TX. "Building an Adult Immunization Practice: The Primary Care Physician's Role in Disease Prevention"

2012 Illinois American Family Practice Meeting, Itasca, IL. "Building an Adult Immunization Practice: The Primary Care Physician's Role in Disease Prevention"

- 2013 American Geriatric Society Meeting, Dallas, Texas. "Viral Respiratory Disease in Older Adults"
- 2013 2<sup>nd</sup> Annual Vanderbilt International Symposium on Respiratory Virus Pathogenesis and Immunity, Nashville, TN "The Epidemiology of RSV and HMPV in older adults"
- 2014 American Medical Directors Association Meeting, Nashville TN March, "Reduction of Infections with the Use of Immunization"
- 2014 American Geriatric Society Meeting, May, Orlando, FL, "Use of Immunizations to Reduce Infections"
- 2014 Vanderbilt General Internal Medicine Grand Rounds, May, "Adult Immunization"
- 2014 Vanderbilt Medicine Grand Rounds, August 21st, "Influenza Vaccines in Older Adults"
- National Immunization Conference: U. S. in a Time of Change, September 29<sup>th</sup>, "Seasonal Influenza Vaccine Efficacy in Older Adults."
- Vanderbilt Infectious Diseases Symposium 2015: Update for Primary Care. "Adult Immunizations for Inpatient and Outpatient Care" May 1<sup>st</sup>.
- 2015 National Foundation for Infectious Diseases Webinar. "Vaccines for Older Adults" September 9<sup>th</sup>.
- 2015 Challenges for Champions: Immunizing Older Adults CME Symposium. "Moving Targets' The What, When, Where, and Why of the ACIP Guidelines" October 7<sup>th</sup>.
- 2016 Vanderbilt Health Policy Grand Rounds "Influenza and Influenza Vaccine in Older Adults" February 24<sup>th</sup>.
- 2016 Vanderbilt General Internal Medicine Grand Rounds "Update on Adult Immunizations" April 20th.
- 2016 Vanderbilt Infectious Disease Symposium "Vaccine Update" April22nd.
- 2016 Advanced Course of Vaccinology, Annecy, France, "Issues with Vaccination in the Elderly" May 31<sup>st</sup>.
- National Foundation of Infectious Diseases Roundtable examining the impact of RSV in older adults, Atlanta GA, "Epidemiology and Pathogenesis of RSV Infection with a focus on older adults" June 21st.
- 2016 Infectious Disease Society of America Annual Meeting (IDWeek), New Orleans, LA, Vincent T. Andriole ID Board Review Course Speaker "Vaccine" October 25th.