

BIOGRAPHICAL SKETCH

NAME David van Duin	POSITION TITLE Visiting Associate Professor, Medicine		
eRA COMMONS USER NAME vanduin	Director, Immunocompromised Host Infectious Diseases Section		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Amsterdam	MD	1993-1999	Medicine
Yale University	PhD	2004-2007	Investigative Medicine

A. Personal Statement:

Dr. van Duin's research interests include infections caused by multi-drug resistant gram-negative bacteria, and infections in solid organ transplant and hematopoietic stem cell transplant recipients.

B. Positions and Honors.

Positions

2000-2003 Resident, Internal Medicine, Albert Einstein College of Medicine/Jacobi Medical Center
 2003-2007 Fellow, Infectious Disease, Yale University School of Medicine/Yale New Haven Hospital
 2008-2011 Associate Program Director, Internal Medicine Residency, Cleveland Clinic Foundation
 2011-2013 Associate Director for Scholarly Activity, Internal Medicine Residency, Cleveland Clinic Foundation
 2007-2013 Staff Physician, Infectious Disease, Cleveland Clinic Foundation
 2013-present Visiting Associate Professor, Medicine, University of North Carolina at Chapel Hill.

Honors

2006 Infectious Disease Society of America Program Choice Award
 2008 Best Staff, Intern Morning Report, Cleveland Clinic Foundation
 2010 British Society of Histocompatibility and Immunogenetics Best Abstract (co-author)
 2012 Infectious Diseases Society of America Education and Research Foundation/National Foundation for Infectious Diseases Association of Specialty Professors Young Investigator Award in Geriatrics.

C. Peer-reviewed publications

- Koppel BS., Hauser WA, Politis C, **van Duin D**, Daras M. "Seizures in the critically ill: the role of imipenem." *Epilepsia*. 2001 Dec; 42(12): 1590-1593.
- **van Duin D**, Casadevall A, Nosanchuk JD. "Melanization of *Cryptococcus neoformans* and *Histoplasma capsulatum* reduces their susceptibilities to amphotericin B and caspofungin." *Antimicrobial Agents and Chemotherapy*. November 2002;46(11):3394-3400.
- **van Duin D**, Cleare W, Zaragoza O, Casadevall A, Nosanchuk JD. "Effects of Voriconazole on *Cryptococcus neoformans*." *Antimicrobial Agents and Chemotherapy*. June 2004; 48(6):2014-2020.
- Nosanchuk JD., **van Duin D**, Manyal P, Aisen P, Legendre AM., Casadevall A. "Blastomyces dermatitidis produces melanin in vitro and during infection" *FEMS Microbiology Letters*. October 2004;239(1):187-193.
- **van Duin D**, Medzhitov R, Shaw AC. "Triggering TLR signaling in vaccination" *Trends in Immunology*. January 2006; 27(1): 49-55.

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- **van Duin D**, Mohanty S, Thomas V, Ginter S, Zhang L, Montgomery RR, Fikrig E, Allore HG, Medzhitov R, Shaw AC. "Age-Associated Defect in Human Toll-like Receptor-1/2 Function" *Journal of Immunology*. January 2007; 178(2): 970-975
- **van Duin D**, Allore H, Mohanty S, Ginter S, Newman F, Belshe R, Medzhitov R, Shaw AC. "Pre-Vaccine Determination of Costimulatory B7 Expression in Activated Monocytes Predicts Influenza Vaccine Responses in Young and Older Adults" *Journal of Infectious Diseases*; June 2007; 195(11): 1590-1597
- **van Duin D**, Shaw AC. "Toll-like Receptors in Older Adults" *Journal of the American Geriatric Society*; September 2007; 55(9):1438-1444
- Cuellar-Rodriguez J, Avery RK, Lard M, Budev M, Gordon SM, Shrestha NK, **van Duin D**, Oethinger M, Mawhorter SD. "Histoplasmosis in solid organ transplant recipients: 10 years of experience at a large transplant center in an endemic area." *Clinical Infectious Diseases*; September 2009, 49(5):710-716
- Panda A, Qian F, Mohanty S, **van Duin D**, Newman FK, Zhang L, Chen S, Towle V, Belshe RB, Fikrig E, Allore HG., Montgomery RR., Shaw AC. "Age-Associated Decrease in TLR Function in Primary Human Dendritic Cells Predicts Influenza Vaccine Response" *Journal of Immunology*; .March 2010, 184(5):2518-27
- **van Duin D**, Goldfarb J, Schmitt SK., Tomford JW, Tuohy MJ, Hall GS. "Non-Tuberculous Mycobacterial Blood Stream and Cardiac Infections in Patients without HIV Infection" *Diagnostic Microbiology and Infectious Diseases*, July 2010, 67; 286-90.
- Avery R, Clauss H, Danziger-Isakov L, Davis J, Doucette K, **van Duin D**, Fishman J, Gunseren F, Humar A, Husain S, Isada C, Julian K, Kaul D, Kumar D, Martin , Michaels M, Morris M, Silveira F, Subramanian A. "Recommended curriculum for subspecialty training in transplant infectious disease on behalf of the American Society of Transplantation Infectious Diseases Community of Practice Educational Initiatives Working Group" *Transplant Infectious Diseases*; 2010, 12: 190-4.
- **van Duin D**, Miranda C, Elaine Husni, E. "Cytomegalovirus Viremia, Pneumonitis, and Tocilizumab Therapy" *Emerging Infectious Diseases*, 2011, 17(4): 754-6.
- Neuner EA, Yeh J, Hall GS, Sekeres J, Endimiani A, Bonomo RA, Shrestha NK, Fraser TG, **van Duin D** "Treatment and Outcomes in Carbapenem-resistant *Klebsiella pneumoniae* Bloodstream Infections" *Diagnostic Microbiology and Infectious Diseases*,.2011,69; 357-362
- Bonilla, MF; Avery RK; Rehm S; Neuner E; Isada CM; **van Duin D**. "Extreme Alkaline Phosphatase Elevation Associated with Tigecycline" *Journal of Antimicrobial Chemotherapy*, 2011, 66(4): 952-953.
- **van Duin D**. "Suppression Of Urinary Tract Infections With Fosfomycin And Trimethoprim-Sulfamethoxazole: A Case Report" *Journal of Chemotherapy*, 2011, 23(1), 51-2.
- Mashir A, Paschke KM, **van Duin D**, Shrestha NK, Laskowski D, Storer MK, Yen-Lieberman B, Gordon SM, Aytakin M, Dweik RA. Effect of the influenza A (H1N1) live attenuated intranasal vaccine on nitric oxide (FE(NO)) and other volatiles in exhaled breath. *Journal of Breath Research*, 2011, 5(3), 037107.
- Goel GA, Deshpande A, Lopez R, Hall GS, **van Duin D**, Carey WD "Increased Rate of Spontaneous Bacterial Peritonitis Among CirrhoticPatients Receiving Pharmacologic Acid Suppression" *Clinical Gastroenterology and Hepatology* 2012, 10(4):422-427.
- Ledtke C, Tomford JW, Jain A, Isada CM, **van Duin D** "Clinical Presentation and Management of Histoplasmosis in Older Adults". *Journal of the American Geriatric Society*, 2012, 60(2): 265-270.
- Ledtke C; Rehm SJ, Fraser TG, Shrestha NK, Tan CD, Rodriguez ER, Tomford JW, Jain A, Lytle B, Johnston D, Sabik J, Gordon SM, **van Duin D** "Endovascular Infections Caused by *Histoplasma capsulatum*: A Case Series and Review of the Literature" *Archives of Pathology and Laboratory Medicine*, 2012, 136(6):640-5
- Fong KS, Tomford JW, Teixeira L, Fraser TG, **van Duin D**, Yen-Lieberman B, Gordon SM, Miranda C. "Challenges of Interferon-gamma Release Assay Conversions in Serial Testing of Health Care Workers in a Tuberculosis Control Program". *Chest* 2012, 142(1):55-62.

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- Singh N, Huprikar S, Burdette SD, Morris MI, Blair JE, Wheat LJ; American Society of Transplantation, Infectious Diseases Community of Practice, Donor-Derived Fungal Infection Working Group: Alexander BD, Assi M, Baddley JW, Blair JE, Blumberg E, Burdette SD, Clancy CJ, Forrest GN, Gomez CA, Hellinger WC, Humar A, Huprikar S, Ison MG, Kalil AC, Kotton CN, Kubak BM, Kumar D, Levi ME, Limaye AP, Lortholary O, Marr KA, Mawhorter SD, Michaels M, Morris MI, Pursell KJ, Safdar N, Singh N, **van Duin D**, Wheat LJ. Donor-derived fungal infections in organ transplant recipients: guidelines of the American Society of Transplantation, infectious diseases community of practice. American Journal of Transplantation 2012 Sep;12(9):2414-28.
- **van Duin D** "Diagnostic Challenges in Older Adults with Infectious Diseases" Clinical Infectious Diseases, 2012, 54(7):973-978.
- Malinis MF, Mawhorter SD, Jain A, Shrestha NK, Avery RK, **van Duin D** "Staphylococcus aureus Bacteremia in Solid Organ Transplant Recipients: Evidence for Improved Survival as Compared to Non-Transplant Patients" Transplantation 2012, 93(10):1045-50.
- Neuner EA, Sekeres J, Hall GS, **van Duin D** "Experience with Fosfomycin for the Treatment of Urinary Tract Infections due to Multi-Drug Resistant Organisms" Antimicrobial Agents and Chemotherapy 2012, 56(11):5744-8.
- Kattan JN, Rehm SJ, **van Duin, D**, Pettersson G, Rodriguez ER, Gordon SM "Whipple's Disease: A Case Revisited 14 Years After Diagnosis", Infectious Diseases in Clinical Practice 2013, 21(3):201-3
- **van Duin D**, Kaye KS, Neuner EA, Bonomo RA "Carbapenem Resistant Enterobacteriaceae: A Review of Treatment and Outcomes" Diagnostic Microbiology and Infectious Diseases 2013, 75(2):115-20.
- **van Duin D**, van Delden C. "AST guidelines: Multidrug resistant gram-negative bacteria" American Journal of Transplantation 2013, Suppl 4:31-41.
- Perez F, **van Duin D**. "The rise of carbapenem-resistant Enterobacteriaceae: a menace to our most vulnerable patients." Cleveland Clinic Journal of Medicine 2013, 80(4):225-33.

D. Research Support.

Current:

- 2012 STERIS grant (van Duin) 9/1/2012 – 8/31/2013 1.20 calendar
STERIS Inc. \$37,500

Carbapenem Resistant Klebsiella pneumoniae in hospitalized patients

The major goals of this project are to study the epidemiology and clinical outcomes of patients with carbapenem-resistant K. pneumoniae infections in North East Ohio.

- 2012 RPC 2012-1002 (van Duin) 5/1/2012 – 4/31/2015 0 calendar
Cleveland Clinic Foundation \$25,000

Consortium to Study Carbapenem-Resistant K. pneumoniae in North East Ohio

The major goals of this project are to study the epidemiology and clinical outcomes of patients with carbapenem-resistant K. pneumoniae infections in North East Ohio.

Completed:

- 2011 GEMSTAR (1R03AG040698) (van Duin) 9/1/2011-8/31/2013 2.40 calendar
National Institute of Aging \$100,000

Dectin-IL-17 axis, candidemia, and aging

The major goals of this award were to study the influence of aging on the dectin-IL17 axis, and to study this axis in the context of *Candida* infections.

- 2011 Annual Pilot Grant (van Duin) 6/1/2011 – 5/31/2012 2.40 calendar
Clinical and Translational Science Collaborative \$50,000

Consortium to Study Carbapenem-Resistant K. pneumoniae in North East Ohio

The major goals of this project are to study the epidemiology and clinical outcomes of patients with carbapenem-resistant K. pneumoniae infections in North East Ohio.

Principal Investigator: David van Duin, MD, PhD

- 2009 Program Project Grant (NIH P01HL087018) (Silverstein). 1/1/2009-present (1.2 calendar months).
National Institutes of Health
This grant supported my role as Director of the Cleveland Clinic Apheresis Protocol.
- November 2008 – September 2011. **Research Programs Council Cleveland Clinic Foundation.** Role: PI.
Total amount \$25.000. This study is aimed at evaluating TLR polymorphisms in bacteremia.
- November 2007- October 2010. **Research Programs Council Cleveland Clinic Foundation.** Role: PI.
Total amount \$25.000.
- July 2005-June 2007. **Yale Mentored Clinical Research Scholars Program** (grant K12RR17594 National Center for Research Resources, Bethesda, Md). Total amount: 250.000. Role: PI
- July 2005-June 2007. **Hartford Center for Excellence in Aging Award.** Total amount: 60.000. Role PI
- July 2004-June 2006 **Claude D. Pepper Older Americans Independence Center at Yale University.**
Role: co-investigator. Total amount: \$50.000
- July 2004-June 2006 **Yale School of Medicine Dean's Pilot Project Grant in Translational Research.**
Role: co-investigator. Total amount: \$50.000