Curriculum Vitae

Ciaran Skerry, B.Sc, PhD

Postdoctoral fellow, Department of Microbiology and Immunology

University of Maryland, School of Medicine

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**Contact Information**

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**Education**

2006 1st class honours degree. B.Sc., Biotechnology, National University of Ireland, Maynooth. Class position: 1st

2010 Ph.D., Immunology, National University of Ireland, Maynooth, Thesis Advisor – Bernard Mahon. Thesis title- “Characterisation of *Bordetella pertussis* host-pathogen interactions”

**Employment History**

**Academic Appointments**

April 2017-Present Research Associate, Department of Microbiology and Immunology, University of Maryland School of Medicine.

April 2014- 2017 Postdoctoral Fellow, Department of Microbiology and Immunology, University of Maryland, School of Medicine. Mentor: Nicholas Carbonetti

Projects: Investigating the role of sphingosine-1-phosphate in pertussis pathogenesis

Designing host-targeted treatments for pertussis

Design and testing of the neonate model of pertussis infection

April 2010- 2014 Postdoctoral Fellow, Center for TB Research, Johns Hopkins University, School of Medicine Mentors: Sanjay Jain and Petros Karakousis

Projects: Nuclear imaging of tuberculosis infection in mice

Designing alternative TB treatment modalities

**Honors And Awards**

2006 Society for General Microbiology (British), Award for highest score in a microbiology discipline, awarded for microbiology exam scores in penultimate degree year

2006 Highest exam scores in my degree class, National University of Ireland, Maynooth

2006-2009 John and Pat Hume Scholarship, Awarded to outstanding prospective PhD students at National University of Ireland, Maynooth

2006-2009 Irish Research Council for Science, Engineering and Technology Postgraduate Scholarship

2007 Best Poster Prize, British Association of Lung Research

**Teaching Service**

**Undergraduate Student Teaching**

2006-2009 Teaching Assistant. Demonstrated to undergraduate students, supervised practical lessons.

2006-Present Frequent supervision of undergraduate and graduate students. Including demonstration of techniques and preparing for graduate school examinations.

##### Graduate Teaching

2015-2016 “Introduction to Immunology” course for medical and graduate students.

University of Maryland Baltimore

Duties: Designing itinerary, delivering lectures, writing exam questions, grading exam papers

##### Grant Support

**Completed Grants:**

2006-2009 *“John and Pat Hume Scholarship”*

National University of Ireland Intramural Grant

Annual Direct Costs: $7,000

Total Direct Costs: $21,000

2006-2009 Irish Research Council for Science, Engineering and Technology

Annual Direct Costs: $28,000

Total Direct Costs: $84,000

**Publications**

**Peer-reviewed journal articles**

1. **CM. Skerry**, JP. Cassidy, K. English, P. Feunou-Feunou, C. Locht and BP. Mahon (2009). A live attenuated *Bordetella pertussis* vaccine does not cause disseminating infection in IFN-g receptor knockout mice. *Clinical Vaccine Immunology* 16:1344-51

2. **CM. Skerry**, C. Locht and BP. Mahon (2011). Long term immunity following

vaccination with a live attenuated *Bordetella pertussis* vaccine. *Clinical Vaccine Immunology* 18:187-93

3. **C. Skerry**\*, J. Harper\*, SL. Davis, R. Tasneen, M. Weir, I. Kramnik, WR. Bishai, MG. Pomper, EL. Nuermberger, and SK. Jain (2012). Mouse model of necrotic TB granulomas develops hypoxic lesions. *Journal of Infectious Diseases* 205:595-602

4. **C. Skerry**, J. Harper, M. Klunk, WR. Bishai and SK. Jain (2012). Adjunctive TNF Inhibition with Standard Treatment Enhances Bacterial Clearance in a Murine Model of Necrotic TB Granulomas. *PLoS ONE* 7:e39680

5. **C. Skerry**, S. Pokkali, M. Pinn, NA. Be, J. Harper, PC. Karakousis and SK. Jain (2013). Vaccination with recombinant Mycobacterium tuberculosis PknD attenuates bacterial dissemination to the brain in guinea pigs. *PLoS ONE* 8:66310

**6. C. Skerry,** M. Pinn, N. Bruiners, R. Pine, ML. Gennaro and PC. Karakousis (2014). Simvastatin increases the in vivo activity of the first-line tuberculosis regimen. *Journal of Antimicrobial Chemotherapy* 69:2453-7

**7.** K. Scanlon, Y. Gau, J. Zhu, **C. Skerry**, S. Wall, M. Soleimani and NH Carbonetti (2014). Epithelial anion transporter pendrin contributes to inflammatory lung pathology in mouse models of Bordetella pertussis infection. *Infection and Immunity* 82:4212-21

**8. C. Skerry**, K. Scanlon, H. Rosen and NH. Carbonetti (2015). Sphingosine-1-phosphate receptor agonism reduces Bordetella pertussis mediated lung pathology. *Journal of Infectious Diseases* 11:1883-6

**9.** L. Viganor, **C. Skerry**, M. McCann and M. Devereux (2015) Tuberculosis: An Inorganic Medicinal Chemistry Perspective. *Current Medicinal Chemistry* 22:2199-224

**10. C. Skerry\***,K. Scanlon\* and NH. Carbonetti (2015). Novel therapies for the treatment of pertussis disease. *Pathogens and Disease* 73:ftv074

**11. C. Skerry**,L. Klinkenberg, K. Page and PC. Karakousis (2016). TLR2-Modulating lipoproteins of the Mycobacterium tuberculosis complex enhance the HIV infectivity of CD4+ T cells. *PLoS One*. 11:e0147192

**12. C. Skerry,** K. Scanlon, J. Ardanuy, D. Roberts, L. Zhang, H. Rosen and NH Carbonetti (2017). Therapeutic treatment with sphingosine-1-phosphate receptor ligands reduces pertussis inflammatory pathology by a pertussis toxin-insensitive mechanism. *Journal of Infectious Diseases* 215:278-86

**13.** KM. Scanlon, YG. Snyder, **C. Skerry** and NH Carbonetti (2017). Fatal pertussis in the neonatal mouse model is associated with pertussis toxin-mediated pathology beyond the airways. *Infection and Immunity* IAI.00355-17

\*Joint first-author

**Proffered Communications**

**Oral Presentations**:

1. 2016 Bordetella Research Symposium, Argentina

2. 2014 Invited speaker at the Johns Hopkins TB Epidemiology department

3. 2011 Johns Hopkins Center for TB Research Annual Scientific Meeting

4. 2011 Johns Hopkins Imaging Symposium

5. 2009 Child-Innovac Annual Meeting. “Pre-Clinical Safety Characteriasation of

BPZE1”

6. 2006, 2007 and 2008 National University of Ireland, Maynooth departmental

presentation

7. 2007 Science Speak “The French Cough Up a New Vaccine”-National finalist

**Poster Presentations**:

1. 2015 Keystone, Innate Immunity and Determinants of Microbial Pathogenesis

2. 2014 Keystone, Novel Therapeutic Approaches to Tuberculosis, Keystone meeting

3. 2013 American Society for Microbiology Annual Meeting

4. 2012 American Society for Microbiology Annual Meeting

5. 2008 British Society for Immunology Annual Meeting

6. 2007 British Association of Lung Research Annual Meeting. Awarded “Best Poster”

prize

7. 2007 and 2008 Irish Society for Immunology

8. 2007 and 2008 NUI Maynooth Immunology Masterclass

**Press**

**1.** TB treatment paradox: Mouse studies show bodys own response helps TB bacteria survive. Science Daily, June 28, 2012

**2.** Stopping the immune system response creates effective tuberculosis treatment. Medical Daily, June 29, 2014.

**3.** Experimental vaccine shows promise against TB. Science Daily June 11, 2013.

**Patents**

1. Vaccination with recombinant mycobacterium tuberculosis pknd attenuates bacterial dissemination to the brain. Sanjay K Jain, **Ciaran Skerry**, Nicholas A. Be. W02014200855A2
2. Lipid-modulating agents as adjunctive therapy for tuberculosis. Petros Karakousis, **Ciaran Skerry,** Richard Pine, Maria Laura Gennaro, Noton Dutta. W02015179500 A1