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EDUCATION

2006-2010	**Imperial College London**, England, UK Ph.D. Molecular & Cellular Biology Advisor: Professor Murray E. Selkirk
2001-2003	**Chang Gung University**, TAIWAN M.Sc. Microbiology & Parasitology Advisor: Professor Petrus Tang
1997-2001	**Chung Yuan Christian University**, TAIWAN B.Sc. Chemistry

RESEARCH EXPERIENCE

2011-Present	**Postdoctoral Research Scholar** Department of Pathology & Immunology, Washington University School of Medicine, USA Advisor: Professor Edward J. Pearce
2010-2011	**Postdoctoral Research Fellow** Trudeau Institute, USA Advisor: Professor Edward J. Pearce
2005-2006	**Full-time Research Assistant** Institute of Biomedical Sciences, Academia Sinica, TAIWAN Advisor: Professor Tai-Huang Huang
2003-2004	**Full-time Research Assistant** Graduate Institute of Biomedical Sciences, Chang Gung University, TAIWAN Advisor: Professor Petrus Tang

PEER REVIEWED PUBLICATIONS

1. Hewitson JP, Filbey KJ, Esser-von Bieren J., Camberis M, Schwartz C, Murray J, Reynolds LA, Blair N, Robertson E, Harcus Y, Boon L, **Huang SC**, Lihua Yang, Yizheng Tu, Miller MJ, Voehringer D, Le Gros G, Harris N, Maizels RM. Complete protection against helminth infection elicited by a molecular vaccine inducing specific IgG1 antibodies and IL-4Rα/IL-25-dependent effector cells. (***PLoS Pathogens***; under revision)
2. Jha A, **Huang SC**, Sergushichev A, Lampropoulou V, Ivanova Y, Chmielewski K, Stewart KM, Ashall J, Everts B, Randolph GJ, Pearce EJ, Driggers EM, Artyomov MN. Network integration of parallel metabolomics-transcriptional data reveals novel metabolic modules regulating divergent macrophage polarization. (***Immunity***; in press)
3. Nascimento M, **Huang SC**, Smith A, Everts B, Lam W, Bassity E, Gautier EL, Randolph GJ, Pearce EJ. Ly6C$^+$ monocyte recruitment is responsible for macrophage accumulation in Th2 associated hepatic inflammation during schistosomiasis. ***PLoS Pathogens***, 2014; 10(8): e1004282. [PMID: 25144366]
4. **Huang SC**, Everts B, Ivanova Y, O'Sullivan D, Nascimento M, Smith AM, Beatty W, Love-Gregory L, Lam WY, O'Neill CM, Yan C, Du H, Abumrad NA, Urban, Jr. JF, Artyomov MN, Pearce EL, Pearce EJ. Cell-intrinsic lysosomal lipolysis is essential for alternative activation of macrophages. ***Nature Immunology***, 2014; 15(9): 846-855. [PMID: 25086775]
5. O'Sullivan D, van der Windt GJ, **Huang SC**, Curtis JD, Chang CH, Buck MC, Qiu J, Smith AM, Lam WY, DiPlato LM, Hsu FF, Birnbaum MJ, Pearce EJ, Pearce EL. Memory CD8+ T cells use cell-intrinsic lipolysis to support the metabolic programming necessary for development. ***Immunity,*** 2014; 41(1), 75-88. [PMID: 25001241]
6. Reese TA, Wakeman BS, Choi HS, Hufford MM, **Huang SC**, Zhang X, Buck MD, Jezewski A, Kambal A, Liu CY, Goel G, Murray PJ, Xavier RJ, Kaplan MH, Renne R, Speck SH, Artyomov MN, Pearce EJ, Virgin HW. Helminth infection reactivates latent γ-herpesvirus via cytokine competition at a viral promoter. ***Science***, 2014; 345(6196): 573-577. [PMID: 24968940]

7. Gautier EL, Ivanov S, Williams JW, **Huang SC**, Marcelin G, Fairfax K, Wang PL, Francis JS, Wang PL, Wilson DB, Artyomov MN, Pearce EJ, Randolph GJ. Gata6 regulates aspartoacylase expression in resident peritoneal macrophages and controls their survival. ***Journal of Experimental Medicine***, 2014; 211(8): 1525-1531. [PMID: 25024137]
8. Everts B, Amiel E, **Huang SC**, Smith AM, Chang CH, Lam WY, Redmann V, Freitas TC, Blagih J, van der Windt GJ, Artyomov MN, Jones RG, Pearce EL, Pearce EJ. TLR-driven early glycolytic reprogramming via the kinases TBK1-IKKε supports the anabolic demands of dendritic cell activation. ***Nature Immunology,*** 2014; 15(4), 323-332. [PMID: 24562310]
9. van der Windt GJ, O'Sullivan D, Everts B, **Huang SC**, Buck MD, Curtis JD, Chang CH, Smith AM, Ai T, Faubert B, Jones RG, Pearce EJ, Pearce EL. CD8 memory T cells have a bioenergetic advantage that underlies their rapid recall ability. ***Proc Natl Acad Sci USA,*** 2013; 110(35), 14336-14341. [PMID: 23940348]
10. Taylor CM, Wang Q, Rosa BA, **Huang SC**, Powell K, Schedl T, Pearce EJ, Abubucker S, Mitreva M. Discovery of anthelmintic drug targets and drugs using chokepoints in nematode metabolic pathways. ***PLoS Pathogens***, 2013; 9(8): e1003505. [PMID: 23935495]
11. Chang CH, Curtis JD, Maggi Jr. LB, Faubert B, Villarino AV, O'Sullivan D, **Huang SC**, van der Windt GJ, Blagih J, Qiu J, Weber JD, Pearce EJ, Jones RG, Pearce EL. Post-transcriptional control of T cell effector function by aerobic glycolysis. ***Cell,*** 2013; 153(6): 1239-1251. [PMID: 23746840]
12. **Huang SC,** Freitas TC, Amiel E, Everts B, Pearce EL, Lok JB, Pearce EJ**.** Fatty acid oxidation is essential for egg production by the parasitic flatworm *Schistosoma mansoni*. ***PLoS Pathogens***, 2012; 8(10):e1002996. [PMID: 23133378]
13. Galanti SE, **Huang SC**, Pearce EJ. Cell death and reproductive regression in female *Schistosoma mansoni.* ***PLoS Negl Trop Dis***, 2012; 6(2):e1509. [PMID: 22363825]
14. **Huang SC**, Chan DT, Smyth D, Ball G, Gounaris K, Selkirk ME. Activation of *Nippostrongylus brasiliensis* larvae is regulated by a pathway distinct from the hookworm *Ancylostoma caninum.* ***International Journal for Parasitology***, 2010; 40(14): 1619-1628. [PMID: 20654619]

PREVIEW & REVIEW PUBLICATIONS

1. **Huang SC**, Pearce EJ. For Macrophages, Ndufs is Enough. ***Immunity***, 2014; 41(3): 351-353. [PMID: 25238092]
2. Fairfax K, Nascimento M, **Huang SC**, Everts B, Pearce EJ. Th2 response in schistosomiasis. ***Seminars in Immunopathology***, 2012; 34(6): 863-871. [PMID: 23139101]
3. Selkirk ME, **Huang SC**, Knox DP, Britton C. The development of RNA interference (RNAi) in gastrointestinal nematodes. ***Parasitology***, 2012; 139(5): 605-612. [PMID: 22459433]

RESEACH GRANTS & AWARDS

2014-2016	American Heart Association Postdoctoral Fellowship (#14POST20480221), USA
2014	Conference Travel Award, Seahorse Bioscience, USA
2012	Conference Travel Award, Seahorse Bioscience, USA
2007-2009	Overseas Research Students Award (ORSA), Imperial College London, UK
2007	Bursary, Imperial College London, UK
2001-2003	Ministry of Education Scholarship for Graduate Students, TAIWAN

CONFERENCE PRESENTATIONS

1. **Huang SC**, Smith AM, Everts B, Artyomov MN, Pearce EJ. Metabolic regulation of macrophage fate: glucose oxidation is essential for alternative macrophage activation. The Multifaceted Roles of Type 2 Immunity, Cell Symposia, Dec 2014, Bruges, Belgium. (*Talk*)
2. **Huang SC**, Nascimento M, O'Sullivan D, Everts B, Smith AM, Lam WY, O'Neill CM, Ivanova Y, Abumrad NA, Du H, Urban JF, Artyomov MN, Pearce EL, Pearce EJ. Macrophage-intrinsic lipolysis is essential for alternative activation. Molecular Cell Biology of Macrophages in Human Diseases (B2), Keystone Symposia, Feb 2014, Santa Fe, USA. (*Talk*)
3. **Huang SC,** Freitas TC, Amiel E, Everts B, Pearce EL, Lok JB, Pearce EJ. Fatty acid oxidation is essential for egg production by the parasitic flatworm *Schistosoma mansoni*. Molecular and Cellular Biology of Helminth Parasites VII, Sep 2012, Hydra, GREECE. (*Talk*)
4. **Huang SC,** Freitas TC, Amiel E, Everts B, Pearce EL, Lok JB, Pearce EJ. Fatty acid oxidation is essential for egg production by the parasitic flatworm *Schistosoma mansoni*. Lipid Droplets: Metabolic Consequences of the Storage of Neutral Lipids, July 2012, Colorado, USA. (*Poster*)
5. **Huang SC**, Selkirk ME. Activation and initiation of feeding *in vitro* in infective third-stage larvae of *Nippostrongylus brasiliensis,* The British Society for Parasitology Spring Meeting, March 2008, Newcastle, UK. (*Poster*)

6. **Huang SC**, Tang P. The roles of cysteine proteinases in *Trichomonas vaginalis* apoptotic pathway. The 18th Meeting of Taiwan Society of Parasitology, Dec 2003, TAIWAN. (*Talk*)
7. **Huang SC**, Tang P. Cell death induced by metronidazole is through apoptosis in *Trichomonas vaginalis.* The 5th International Meeting of Tropical Medicine and Parasitology, Nov 2002, CHINA. (*Talk*)

INVITED & SELECTED PRESENTATIONS

2014	Department of Anatomy and Cell Biology, National Taiwan University, TAIWAN (Research Seminar)
2013	Department of Microbiology, Washington University School of Medicine, USA (Research Seminar)
2012	Division of Immunobiology, Washington University School of Medicine, USA (Retreat Seminar)
2012	Department of Microbiology, Washington University School of Medicine, USA (Research Seminar)
2010	Department of Parasitology, National Taiwan University, TAIWAN (Research Seminar)
2010	Department of Parasitology, Chang Gung University, TAIWAN (Research Seminar)

MENTORING & TEACHING EXPERIENCE

2013	PhD research rotation student mentor (Student: Christina M. O'Neill) Department of Pathology and Immunology, Washington University School of Medicine, USA
2010	Final year Honours thesis mentor (Students: Shenzhen Tempest-Roe & Phil Jakeman) Biochemistry Undergraduate, Imperial College London, UK
2008	Final year Honours thesis mentor (Student: Sandy Juliana Chow) Biochemistry Undergraduate, Imperial College London, UK
2007	Final year Honours thesis mentor (Student: Denice TY Chan) Biochemistry Undergraduate, Imperial College London, UK
2007-2009	Demonstrator of Immunology Practical, 2nd year Biochemistry/Biotechnology Course, Imperial College London, UK
2002-2003	Teaching Assistant of Bioinformatics, Graduate Institute of Biomedical Sciences, Chang Gung University, TAIWAN
2001-2002	Teaching Assistant of Parasitology, College of Medicine, Chang Gung University, TAIWAN

REFERENCES

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