

Carmen YONG

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Zurich, Switzerland
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D.O.B 19th of July, 1989
Email: carmensyong@gmail.com

Current employment

July 2019

Post-doctoral researcher

Cancer Research Centre
UniversitätsSpital Zürich, Boyman Lab
Universität Zürich, Pruschy Lab.
Zurich, Switzerland

Work and Education

November 2017-July 2019

Post-doctoral researcher

'Role of metabolism in T cell fate and function'

Hematopoiesis and Immunotherapy Lab,
Institut de Génétique Moléculaire de Montpellier (IGMM)
Montpellier, France
Supervision: Naomi Taylor & Valerie Dardalhon

Post-graduate

March 2013 to September 2017

Doctor of Philosophy (Joint Phd – Co-tutelle program)

'Enhancing adoptive immunotherapy:

Redirecting immune subsets and metabolic pathways'

Thesis defence: 15/09/2017

**Sir Peter MacCallum Department of Oncology,
Melbourne University, Melbourne, Australia**

Immune Innovation/Immunotherapy Lab,
Cancer Immunology Research
Peter MacCallum Cancer Centre, East Melbourne, Australia
Supervision: Christel Devaud, Phillip Darcy & Michael Kershaw

Department of Science

University of Montpellier, Montpellier, France

Hematopoiesis and Immunotherapy Lab,
Institut de Génétique Moléculaire de Montpellier (IGMM)
Montpellier, France
Supervision: Naomi Taylor & Valerie Dardalhon

Tertiary

2011

**Bachelor of Biomedical Science, Honours
Monash University, Melbourne, Australia**

“Investigation of Vav promoter mediated expression of a chimeric antigen receptor in hematopoietic cell lines”

Immunotherapy Lab, Cancer Immunology Research

Peter MacCallum Cancer Centre, East Melbourne, Australia

Supervision:

Michael Kershaw & Phillip Darcy

Academic Achievement WAM: 83.75 (H1)

Graduated top 15% of the class. Received membership into the Golden Key International Honour Society

2008 – 2010

**Bachelor of Biomedical Science
Monash University, Melbourne, Australia**

Majoring in Immunology and Genetics

Academic Achievement WAM: 74.28

Semester 2 2010

Achieved highest academic performance in the third year unit “IMM3062 Clinical and research laboratory immunology”

Publications

2017

Yong CS, Abba Moussa D, Cretenet G, Kinet S, Dardalhon V, Taylor N. Metabolic orchestration of T lineage differentiation and function. *FEBS Lett.* Oct;591(19):3104-3118

Yong CSM, Dardalhon V, Devaud C, Taylor N, Darcy PK, Kershaw MH. CAR T cell therapy of solid tumors. *Immunol Cell Biol.* Apr;95(4):356-363

2016

Yong CS, John LB, Devaud C, Prince HM, Johnstone RW, Trapani JA, Darcy PK, Kershaw MH. A role for multiple chimeric antigen receptor-expressing leukocytes in antigen-specific responses to cancer. *Oncotarget.* 2016 Jun 7;7(23):34582-98

2015

Yong CS, Westwood JA, Schröder J, Papenfuss AT, von Scheidt B, Moeller M, Devaud C, Darcy PK, Kershaw MH. Expression of a Chimeric Antigen Receptor in Multiple Leukocyte Lineages in Transgenic Mice. *PLoS One.* Oct 27;10(10):e0140543

Klysz D, Tai X, Robert PA, Craveiro M, Cretenet G, Oburoglu L, Mongellaz C, Floess S, Fritz V, Matias MI, **Yong C**, Surh N, Marie JC, Huehn J, Zimmermann V, Kinet S, Dardalhon V, Taylor N. Glutamine-dependent α -ketoglutarate production regulates the balance between T helper 1 cell and regulatory T cell generation. *Sci Signal.* 2015 Sep 29;8(396):ra97

Yong CS, Sharkey J, Duscio B, Venville B, Wei WZ, Jones RF, Slaney CY, Mir Arnau G, Papenfuss AT, Schröder J, Darcy PK, Kershaw MH. Embryonic Lethality in Homozygous Human Her-2 Transgenic Mice Due to Disruption of the Pds5b Gene. *PLoS One*. Sep 3;10(9):e0136817

Devaud C, John LB, Westwood JA, **Yong CSM**, Beavis PA, Schwendener RA, Darcy PK, Kershaw MH. Cross-talk between tumors can affect responses to therapy. *Oncoimmunology* Jun 7;4(7):e975572

Davenport AJ, Jenkins MR, Cross RS, **Yong CS**, Prince HM, Ritchie DS, Trapani JA, Kershaw MH, Darcy PK, Neeson PJ. CAR-T cells inflict sequential killing of multiple tumor target cells. *Cancer Immunol Res*. May;3(5):483-94

Duong CPM, **Yong CSM**, Kershaw MH, Slaney CY, Darcy PK. Cancer immunotherapy utilizing gene-modified T cells: from the bench to the clinic. *Mol Immunol*. Oct;67(2 Pt A):46-57

2014

Devaud C, Westwood JA, Teng MWL, John LB, **Yong CSM**, Duong CPM, Smyth MJ, Darcy PK, Kershaw MH. Differential potency of regulatory T cell-mediated immunosuppression in kidney tumors compared to subcutaneous tumors. *Oncoimmunology* Dec 21;3(11):e963395

Devaud C, **Yong CSM**, John LB, Westwood JA, Duong CPM, House CM, Denoyer D, Li J, Darcy PK, Kershaw MH. Foxp3 expression in macrophages associated with RENCA tumors in mice. *Plos One*. Sep 29;9 (9)

Darcy PK, Neeson P, **Yong CS**, Kershaw MH. Manipulating immune cells for adoptive immunotherapy of cancer. *Curr Opin Immunol*. April;27:46-52

Devaud C, Westwood JA, John LB, Flynn JK, Paquet-Fifield S, Duong CP, **Yong CS**, Pegram HJ, Stacker SA, Achen MG, Stewart TJ, Snyder LA, Teng MW, Smyth MJ, Darcy PK, Kershaw MH. Tissues in Different Anatomical Sites Can Sculpt and Vary the Tumor Microenvironment to Affect Responses to Therapy. *Mol Ther*. Jan;22(1):18-27

2013

John LB, Devaud C, Duong CM, **Yong C**, Beavis PA, Haynes NM, Chow MT, Smyth MJ, Kershaw MH, Darcy PK. Anti-PD-1 antibody therapy potently enhances the eradication of established tumors by gene-modified T cells. *Clin Cancer Res*. Oct 15;19(20):5636-46

Yong CSM, Duong CPM, Devaud C, John LB, Darcy PK, Kershaw MH. Using Electroporation to Determine Function of a Chimeric Antigen Receptor in T Cell and Macrophage Cell Lines. *Open Gene Ther J*. Jul (5)

Henderson MA, **Yong CS**, Duong CP, Davenport AJ, John LB, Devaud C, Neeson P, Westwood JA, Darcy PK, Kershaw MH. Chimeric antigen receptor-redirected T cells display multifunctional capacity and enhanced tumor-specific cytokine secretion upon secondary ligation of chimeric receptor. *Immunotherapy* Jun;5(6):577-90

Duong CP, Westwood JA, **Yong CS**, Murphy A, Devaud C, John LB, Darcy PK, Kershaw MH. Engineering T cell function using chimeric antigen receptors identified using a DNA library approach. *PLoS One* May 7;8(5):e63037

Fellowships and Awards

June 2016

L'Association pour la Recherche sur le Cancer (ARC) 4th year PhD scholarship
1/10/2016 – 1/10/2017

April 2016

Australasian Society for Immunology (ASI) travel bursary 2016

May 2015

Cancer Therapeutics Australia (CTx) Top up scholarship
01/01/2015-18/09/2016

December 2014

Australasian Society for Immunology travel bursary 2014

March 2013

Australian Postgraduate Award (2013-2016)
18/03/2013-18/09/2016

Conference/Presentations (non-exhaustive)

July 2019

50 Shades of Immunology Zurich, Switzerland
Poster presentation: Enhancing adoptive immunotherapy: redirecting immune subsets and metabolic pathways

June 2018

Cell Symposia Translational Immunometabolism Basel, Switzerland
Poster presentation: α -ketoglutarate-mediated regulation of T cell effector function

November 2016

50th Annual Meeting of the French Society for Immunology Paris, France
Poster presentation: Enhancing adoptive immunotherapy: redirecting immune subsets and metabolic pathways

September 2016

2nd Metabolism and Cancer Symposium Palavas-les-Flots, France
Poster presentation: Enhancing adoptive immunotherapy: redirecting immune subsets and metabolic pathways

August 2016

16th International Congress of Immunology (ICI) Melbourne, Australia
Poster presentation: Enhancing adoptive immunotherapy: redirecting immune subsets and metabolic pathways

Sept 2015

4th European Congress of Immunology (ECI)

Vienna, Austria

Poster presentation: Redirecting immune subsets through genetic manipulation for enhancing adoptive immunotherapy.

Dec 2014

44th Australasian Society for Immunology (ASI) Annual Meeting

Wollongong, Australia

Oral presentation: Redirecting immune subsets through genetic manipulation for enhancing adoptive immunotherapy.

Sept 2014

21st Immunology Group of Victoria (IgV) Annual Meeting

Ballarat, Australia

Co-chair of the Cancer Immunology session

Oral Presentation: Redirecting immune subsets through genetic manipulation for enhancing adoptive immunotherapy

Professional memberships

Société Française d'Immunologie (SFI) (French Society of Immunology)

The Australasian Society for Immunology (ASI)

Golden Key International Honour Society

Skills and Personal Attributes

- **Molecular biology**
- **Western blot**
- **QRT-PCR**
- **Flow cytometry:** multiparameter flow cytometry, intracellular cytokine staining, cytometric bead array
- **Cellular functional assays:** chromium release assay, ELISA, suppression assay,
- **Metabolic assays:** Seahorse, radiolabeled metabolite uptake assays
- **Mouse handling and experimentation**
- Excellent organisation and time management skills acquired through balancing two part time jobs and full time study at university
- Competent IT skills, which include Microsoft Word, Powerpoint, Excel, Graphpad Prism, Flowjo, Flowlogic, DIVA, Illustrator software
- Extremely quick learner, able to work both in a team and independently, able to multitask, excellent written and verbal communication skills

Employment History

Jan 2012 – Feb 2013

Immunotherapy Lab

Cancer Immunology Research Program

Peter MacCallum Cancer Centre

Co-lab Heads:

Assoc Prof. Michael Kershaw and Assoc Prof. Phillip Darcy

Research Area: Adoptive Immunotherapy in Cancer

Skills performed: Molecular biology, sterile cell culture, genetic modification (retroviral transduction and electroporation), ELISA, flow cytometry, RT-PCR, CBA, mouse handling and experimentation.

July 2010 – December 2010

Slattery Lab

**Department of Immunology, Monash University
The Alfred Medical and Research Education Precinct**

Lab Head: Dr. Robyn Slattery

Research Area: Type 1 Diabetes

Volunteer research assistant

Involved in culling mice and removing organs to prepare for FACs analysis. Prepared sections of frozen organs using a Cryostat and performed H&E staining.

Referees:

2019

Assoc Prof. Phillip Darcy, Group Leader

Immunotherapy Lab

Peter MacCallum Cancer Centre

PhD Supervisor

phil.darcy@petermac.org

Assoc Prof. Michael Kershaw, Group Leader

Immune Innovation Lab

Peter MacCallum Cancer Centre

PhD Supervisor

michael.kershaw@petermac.org

Assoc Prof. Valerie Dardalhon

Haematopoiesis and Immunotherapy

Institute de Génétique Moléculaire de Montpellier

PhD Supervisor

valerie.dardalhon@igmm.cnrs.fr

Prof. Naomi Taylor

Haematopoiesis and Immunotherapy, Group Leader

Institute de Génétique Moléculaire de Montpellier

PhD Supervisor

naomi.taylor@igmm.cnrs.fr