Tim D. D. Somerville

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EDUCATION

- PhD, CRUK Manchester Institute, The University of Manchester, UK 2011-2015
- BSc (Hons) 1st Class in Anatomical Science, The University of Manchester, UK 2006-2009

RESEARCH EXPERIENCE

Cold Spring Harbor Laboratory, New York, USA 2015-present
Postdoctoral Researcher
Project: Transcriptional deregulation and acquired vulnerabilities in pancreatic cancer
Supervisor: Dr Christopher Vakoc

- Catalogued essential transcription factors, chromatin regulators and kinases in human pancreatic ductal adenocarcinoma cell lines through a domain-focused CRISPR/Cas9 screening approach
- Identified the transcription factor TP63 as essential in a subset of cell lines and described the mechanism through which TP63 drives the squamous subtype of pancreatic cancer
- Awarded funding through the CSHL Cancer Gene Discovery and Cancer Biology Postdoctoral Research Training Program (from New York State) to identify and investigate the role master regular transcription factors in pancreatic ductal adenocarcinoma

CRUK Manchester Institute, Manchester, UK 2011-2015
Graduate Researcher
Project: Functional characterisation of the transcription factors FOXC1 and IRX3 in acute leukaemias
Supervisor: Dr Tim Somervaille

- Identified the transcription factor genes *FOXC1* and *IRX3* to be derepressed to functional effect in human acute leukaemias
- Awarded the Dexter Award for Young Scientists (2015), the Manchester Doctoral College Best Outstanding Output Award (2015) and the University of Manchester Postgraduate Researcher of the Year Best Outstanding Output Award (2016).

Epistem Ltd, Manchester, UK 2009-2011
Senior Research Assistant
Project: Development of novel biomarker platforms for pre-clinical applications
Supervisor: Dr Catherine Booth

FUNDING

- CSHL Cancer Gene Discovery and Cancer Biology Postdoctoral Research Training Program, NY State – stipend for 3 years plus $2,400 of research funds

SELECTED PUBLICATIONS

Somerville, T. D. D., Xu, Y., Miyabayashi, K., Tiriac, H., Cleary, C. R., Maia-Silva., D., Milazzo, J. P., Tuveson, D. A., and Vakoc, C. R. (2018). TP63-mediiated enhancer reprogramming drives the squamous subtype of pancreatic ductal adenocarcinoma. Cell Reports, *Accepted Manuscript*.

Huang, Y.-H., Klingbeil, O., He, X.-Y., Wu, X. S., Arun, G., Lu, B., **Somerville, T. D. D.**, Milazzo, J. P., Wilkinson, J. E., Demerdash, O. E., *et al.* (2018). POU2F3 is a master regulator of a tuft cell-like variant of small cell lung cancer. Genes & Development *32*, 915-928.

Tiriac, H., Belleau, P., Engle, D. D., Plenker, D., Deschênes, A., **Somerville, T. D. D.**, Froeling, F. E. M., Burkhart, R. A., Denroche, R. E., Jang, G.-H., *et al.* (2018). Organoid profiling identifies common responders to chemotherapy in pancreatic cancer. Cancer Discovery.

Tarumoto, Y., Lu, B., **Somerville, T. D. D.**, Huang, Y.-H., Milazzo, J. P., Wu, X. S., Klingbeil, O., El Demerdash, O., Shi, J., and Vakoc, C. R. (2018). LKB1, Salt-Inducible Kinases, and MEF2C Are Linked Dependencies in Acute Myeloid Leukemia. Molecular Cell *69*, 1017-1027.e1016.

Somerville, T. D. D., Simeoni, F., Chadwick, J. A., Williams, E. L., Spencer, G. J., Boros, K., Wirth, C., Tholouli, E., Byers, R. J., and Somervaille, T. C. P. (2018). Derepression of the Iroquois Homeodomain Transcription Factor Gene IRX3 Confers Differentiation Block in Acute Leukemia. Cell Reports *22*, 638-652.

Xu, Y., Milazzo, J. P., **Somerville, T. D. D.**, Tarumoto, Y., Huang, Y.-H., Ostrander, E. L., Wilkinson, J. E., Challen, G. A., and Vakoc, C. R. (2018). A TFIID-SAGA Perturbation that Targets MYB and Suppresses Acute Myeloid Leukemia. Cancer Cell *33*, 13-28.e18.

Roe, J.-S., Hwang, C.-I., **Somerville, T. D. D.**, Milazzo, J. P., Lee, E. J., Da Silva, B., Maiorino, L., Tiriac, H., Young, C. M., Miyabayashi, K., *et al.* (2017). Enhancer Reprogramming Promotes Pancreatic Cancer Metastasis. Cell *170*, 875-888.e820.

Somerville, T. D. D., and Somervaille, T. C. P. (2016). Tissue-inappropriate derepression of FOXC1 is frequent and functional in human acute myeloid leukemia. Molecular & Cellular Oncology *3*, e1131355.

Somerville, T. D. D., Wiseman, Daniel H., Spencer, Gary J., Huang, X., Lynch, James T., Leong, Hui S., Williams, Emma L., Cheesman, E., and Somervaille, Tim C. P. (2015). Frequent Derepression of the Mesenchymal Transcription Factor Gene FOXC1 in Acute Myeloid Leukemia. Cancer Cell *28*, 329-342.

Full publication list: **http://www.ncbi.nlm.nih.gov/pubmed/?term=somerville+td**

SUPERVISION EXPERIENCE

- PhD Supervisor to Watson School of Biomedical Sciences PhD rotations, 2018
- PhD Supervisor to Graduate Program in Genetics, Stony Brook University PhD rotations, 2016
- Laboratory Demonstrator to Faculty of Life Sciences undergraduate students, The University of Manchester, 2014-2015

PRESENTATIONS

Oral

- Mechanisms and Models and Cancer, Cold Spring Harbor Laboratory, NY, USA. *TP63-mediated enhancer reprogramming drives the squamous subtype of pancreatic ductal adenocarcinoma*. August 2018.

- 8th International PhD Student Cancer Conference, Heidelberg, Germany. *Defining the role of FOXC1 in acute myeloid leukaemia.* June 2014.

Poster

- AACR Special Conference of Pancreatic Cancer: Advances in Science and Clinical Care, Boston, USA. *Acquisition of squamous identity drives the squamous subtype of pancreatic cancer*. September 2018.

- 56th American Society of Hematology Annual Meeting, San Francisco, USA. *FOXC1 is derepressed to functional effect in acute myeloid leukaemia*. December 2014. **ASH Abstract Achievement Award: $500**.

- International Conference on AML: "Molecular and translational" – Advances in the Biology and Treatment, Budapest, Hungary. *Frequent Derepression of the Mesenchymal Transcription Factor Gene FOXC1 in Acute Myeloid Leukaemia*. September 2015. **BSH Travel Award: £1000**.

- 7th International PhD Student Cancer Conference, Heidelberg, Germany.
  FOXC1 collaborates with HOXA9 to maintain the differentiation block and clonogenic potential in acute myeloid leukaemia. June 2013.

REFEREES

Christopher Vakoc
Postdoctoral Supervisor
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David Tuveson
Director of the Cancer Centre
Cold Spring Harbor Laboratory, NY, USA
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