Curriculum Vitae: Hannah L. Williams, PhD

Workplace: Institute of Tissue Medicine and Pathology, University of Bern, Murtenstrasse 31, Room 312, 3010 Bern, Switzerland
E: hannah.williams@unibe.ch
D.O.B. 18/03/1989

Education

PhD, Molecular Pathology 11/13 – 04/19
Thesis: The role of Dual Specificity Phosphatase 6 (DUSP6) in colorectal carcinogenesis
University of St Andrews, Scotland, UK

BSc (Hons), Biology 2.1 09/08 – 06/12
University of St Andrews, Scotland, UK

Employment and Training

Junior Group Leader. 09/22 - Present
Institute for Tissue Medicine and Pathology,
University of Bern, Switzerland

Senior Postdoctoral Research Fellow 09/21 – 08/22
Professor John Le Quesne laboratory,
CRUK Beatson Cancer Research Institute, Glasgow, Scotland, UK.

Postdoctoral Research Fellow 04/19 – 07/21
Department of Medical Oncology,
Dana-Farber Cancer Institute and Harvard Medical School, Boston, MA, USA.

Full-time PhD Student 11/18 – 04/19
University of St Andrews, School of Medicine, Fife, Scotland, UK.

Part-time PhD Student 11/15 – 11/18
University of St Andrews, School of Medicine, Fife, Scotland, UK.

Genetic Technologist 11/15 – 11/18
United Kingdom Quality Assurance Scheme (UK NEQAS),
Department of Laboratory Medicine, Royal Infirmary of Edinburgh, Scotland, UK

Technologist in Molecular Pathology 01/13 – 11/15
NHS Lothian, Department of Pathology, Royal Infirmary of Edinburgh, Scotland UK.

Group membership

Bern center for precision medicine (BCPM) 11/22-Present

Grants and Awards

Werner and Hedy Berger-Jansen Foundation Award 01/23-01/24
"Exploring intra-tumoural heterogeneity and the factors influencing subtype identity in colorectal adenocarcinoma"
Award value: 80,000CHF

Talent4Bern SNSF mentoring awardee 18/10/22
Medical Faculty,
University of Bern

Harvard Medical School Pathology Retreat Award 21/05/21
Harvard Medical School, Boston, MA

DF/HCC GI SPORE Career Enhancement Award (P50CA127003) 06/30/20 – 06/30/21
Role: Principal Investigator
Interrogation of transcriptional subtype heterogeneity and plasticity in pancreatic ductal adenocarcinoma. The main goal of this project is to explore the impact of subtype heterogeneity on chemotherapeutic response in vitro and in vivo PDAC models using fluorescent reporter and subtype switch models.
Award value: 50,000USD

Bob Parsons Research Fellow in Pancreatic Cancer Research, 04/20 – 07/21
Dana-Farber Cancer Institute, Boston, MA

Teaching and student supervision

Lecturer in Cancer Genomics module (Spatial transcriptomics) *12*/22
Bioinformatics and computational biology MSc course
University of Bern

Training and supervisions of Research Assistant in molecular pathology techniques 06/20
Wolpin/Nowak laboratory
Dana Farber Cancer Institute, Boston, MA

Contribution to undergraduate Pathology course content 09/18
University of St Andrews, Medical School, Scotland, UK

Supervision of undergraduate medical student dissertation projects 04/19
Harrison Laboratory
University of St Andrews, Medical School, Scotland, UK

Presentations

Harvard Medical School Pathology Retreat, Hot Topics speaker 21/05/21
Spatially resolved, single cell assessment of pancreatic ductal adenocarcinoma expression subtypes reveals mixed and hybrid basal-classical marker expression with prognostic significance and discrete spatial localization.

AACR Virtual Special Conference on Pancreatic Cancer 09/30/20
Williams HL, Zhang J, Raghavan S, Winter PS, Kapner K, Vayrynen S, et al. Abstract PR-006: Spatially resolved, single cell assessment of pancreatic ductal adenocarcinoma expression

subtypes reveals mixed and hybrid basal-classical marker expression with prognostic significance and discrete spatial localization. Cancer Res [Internet]. 2020 Nov 15;80(22 Supplement):PR-006 LP-PR-006. Available from: http://cancerres.aacrjournals.org/content/80/22_Supplement/PR-006.abstract

Publications

***Williams, H. L.,** Dias Costa, A., Zhang, J., Raghavan, S., Winter, P. S., Kapner, K. S., Ginebaugh, S. P., Väyrynen, S. A., Väyrynen, J. P., & Yuan, C. (2022). Spatially-resolved single-cell assessment of pancreatic cancer expression subtypes reveals co-expressor phenotypes and extensive intra-tumoral heterogeneity. *Cancer Research*.

Dias Costa, A., Väyrynen, S. A., Chawla, A., Zhang, J., Väyrynen, J. P., Lau, M. C., **Williams, H.** L., Yuan, C., Morales-Oyarvide, V., & Elganainy, D. (2022). Neoadjuvant chemotherapy is associated with altered immune cell infiltration and an anti-tumorigenic microenvironment in resected pancreatic cancer. *Clinical Cancer Research*, *28*(23), 5167–5179.

Väyrynen, S. A., Zhang, J., Yuan, C., Väyrynen, J. P., Dias Costa, A., **Williams, H.,** Morales-Oyarvide, V., Lau, M. C., Rubinson, D. A., & Dunne, R. F. (2021). Composition, Spatial Characteristics, and Prognostic Significance of Myeloid Cell Infiltration in Pancreatic CancerMyeloid Cells in Pancreatic Cancer. *Clinical Cancer Research*, *27*(4), 1069–1081.

*Raghavan, S., *Winter, P. S., *Navia, A. W., ***Williams, H. L.,** DenAdel, A., Lowder, K. E., Galvez-Reyes, J., Kalekar, R. L., Mulugeta, N., & Kapner, K. S. (2021). Microenvironment drives cell state, plasticity, and drug response in pancreatic cancer. *Cell*, *184*(25), 6119–6137.

Vayrynen, S. A., Yang, A., Wang, J., Zhang, J., Lowder, K., Kapner, K. S., Bosse, T., Raghavan, S., Costa, A. D., & **Williams, H.** (2020). MTAP protein expression is lost in nearly one-third of primary pancreatic cancers and is associated with sensitivity to MAT2A inhibition in patient-derived organoid models. *CANCER RESEARCH*, *80*(22).

Costa, A. D., Vayrynen, S., Chawla, A., Zhang, J., Vayrynen, J. P., Lau, M. C., **Williams, H. L**., Yuan, C., Morales-Oyarvide, V., & Rubinson, D. A. (2020). Neoadjuvant therapy is associated with altered composition of immune cell infiltration and an anti-tumorigenic microenvironment in resected pancreatic cancer. *CANCER RESEARCH*, *80*(22).

Vayrynen, S., Yuan, C., Vayrynen, J., Costa, A. D., **Williams, H.,** Morales-Oyarvide, V., Lau, M. C., Rubinson, D., Dunne, R., & Kozak, M. (2020). Prognostic Significance and Genomic Correlates of Myeloid Cell Populations in the Pancreatic Cancer Microenvironment. *LABORATORY INVESTIGATION*, *100*(SUPPL 1), 1681–1682.

Costa, A. D., Yuan, C., Vayrynen, S., Vayrynen, J., **Williams, H.,** Morales-Oyarvide, V., Lau, M. C., Rubinson, D., Dunne, R., & Kozak, M. (2020). Quantitative, Multiplexed Analysis of the Pancreatic Cancer Microenvironment Reveals Prognostic Significance for T cell Subset Densities and Spatial Distribution. *LABORATORY INVESTIGATION*, *100*(SUPPL 1), 1641–1642.

Luoma, A. M., Suo, S., **Williams, H. L.,** Sharova, T., Sullivan, K., Manos, M., Bowling, P., Hodi, F. S., Rahma, O., & Sullivan, R. J. (2020). Molecular pathways of colon inflammation induced by cancer immunotherapy. *Cell*, *182*(3), 655–671.

***Williams, H. L.,** Walsh, K., Diamond, A., Oniscu, A., & Deans, Z. C. (2018). Validation of the Oncomine™ focus panel for next-generation sequencing of clinical tumour samples. *Virchows Archiv*, *473*(4), 489–503.

Deans, Z. C., **Williams, H.,** Dequeker, E., Keppens, C., Normanno, N., Schuuring, E., Patton, S. J., Cheetham, M., Butler, R., & Hall, J. A. (2017). Review of the implementation of plasma ctDNA testing on behalf of IQN Path ASBL: a perspective from an EQA providers' survey. *Virchows Archiv*, *471*(6), 809–813.

***Williams, H. L.,** Zhang, J., Raghavan, S., Winter, P. S., Kapner, K., Vayrynen, S., Costa, A. D., Yuan, C., Lau, M. C., & Morales-Oyarvide, V. (2020). Abstract PR-006: Spatially resolved, single cell assessment of pancreatic ductal adenocarcinoma expression subtypes reveals mixed and hybrid basal-classical marker expression with prognostic significance and discrete spatial localization. *Cancer Research*, *80*(22_Supplement), PR-006.

Raghavan, S., Winter, P. S., Navia, A. W., ***Williams, H. L.,** DenAdel, A., Kalekar, R. L., Galvez-Reyes, J., Lowder, K. E., Mulugeta, N., & Raghavan, M. S. (2020). Abstract PO-058: Transcriptional subtype-specific microenvironmental crosstalk and tumor cell plasticity in metastatic pancreatic cancer. *Cancer Research*, *80*(22_Supplement), PO-058.

Väyrynen, S. A., Yang, A., Wang, J., Zhang, J., Lowder, K., Kapner, K. S., Bosse, T., Raghavan, S., Costa, A. D., & **Williams, H.** (2020). Abstract PO-013: MTAP protein expression is lost in nearly one-third of primary pancreatic cancers and is associated with sensitivity to MAT2A inhibition in patient-derived organoid models. *Cancer Research*, *80*(22_Supplement), PO-013.

Costa, A. D., Väyrynen, S., Chawla, A., Zhang, J., Väyrynen, J. P., Lau, M. C., **Williams, H. L.,** Yuan, C., Morales-Oyarvide, V., & Rubinson, D. A. (2020). Abstract PR-001: Neoadjuvant therapy is associated with altered composition of immune cell infiltration and an anti-tumorigenic microenvironment in resected pancreatic cancer. *Cancer Research*, *80*(22_Supplement), PR-001.