• **Full Name:**	Alexander Swarbrick
• **Current Position & Affiliation:**	Strategic Program Co-Lead, Targeting the tumour ecosystems and Lab Head, Garvan Institute of Medical Research
• **Country:**	Australia

• **Educational Background:**

- 1995: 1st class Honours, Molecular & Cellular Biology, UNSW Sydney
- 2003: Doctorate of Philosophy, UNSW Sydney

• **Professional Experience:**

- 2023: NHMRC Leadership Fellowship (Level 2)
- 2023-present Professor, University of New South Wales, Sydney
- 2022-present Strategic Program Co-Lead: Targeting the tumour ecosystems
- 2020-present Petre Foundation Chair of Breast Cancer Research
- 2019: NHMRC Senior Research Fellowship
- 2017-2022: Petre Foundation Chair of Breast Cancer Research
- 2016-2023 Associate Professor, University of New South Wales, Sydney
- 2013: NHMRC Career Development Fellowship II
- 2011: NSW Premier's award for Outstanding Research Fellow, Cancer Institute NSW
- 2011: National Breast Cancer Foundation Fellowship
- 2011-present Member Scientific Faculty, Garvan Institute of Medical Research
- 2009: CINSW Early Career Fellowship and NBCF Early Career Fellowship
- 2009-2016 Conjoint Senior Lecturer, University of New South Wales, Sydney
- 2008-present Lab Head, Cancer Research Program, Garvan Institute of Medical Research
- 2007: Sydney University Medal for Excellence in Medical Research
- 2007 Postdoctoral Fellow, Garvan Institute of Medical Research
- 2005: CJ Martin Fellowship from the NHMRC
- 2003-2007 Postdoctoral Fellow, University of California, San Francisco Francisco

• **Professional Organizations:**

- Inaugural senior section editor for Cancer Research Communications, a new journal from the American Association for Cancer Research 2021-current
- Associate Editor for Breast Cancer Research in the areas of cellular and molecular pathogenesis. 2020-2021
- Member of grant review committee for Cancer Australia 2021
- External grant assessor for the Welcome Leap Program 2021
- External assessor for ~ 7 applications/year for NHMRC project grants (2008-current), as well as other bodies including Cancer Institute NSW, Cancer Research UK, Sparks UK and the UK MRC.
- GRP (Oncology) for the NHMRC in 2011, 2014, 2017.

- Grant review committee for the Victorian Cancer Agency's startup fund, 2013
- National Breast Cancer Grant Committee, 2012, 2013, 2017, 2019
- Sydney Catalyst Grant review panel, 2016, 2017, 2019
- Regular reviewer for journals including Nature (5x in 2021), Nature Genetics, Nature Communications, Cell Reports, Nature Biotechnology, Breast Cancer Research, Cancer Research, Oncogene, Cell Genomics, e-Life, Nucleic acids Research.

• Main Scientific Publications (2019-Present):

1. Chaudagar K et al., (2023). Reversal of lactate and PD-1-mediated macrophage immunosuppression controls growth of PTEN/p53-deficient prostate cancer. **Clin Cancer Res doi: 10.1158/1078-0432.CCR-22-3350.**
2. Masle-Farquhar E et al., (2022). STAT3 gain-of-function mutations connect leukemia with autoimmune disease by pathological NKG2D(hi) CD8(+) T cell dysregulation and accumulation. **Immunity 55: 2386-2404**.
3. Baldwin LA et al., (2022). DNA barcoding reveals ongoing immunoediting of clonal cancer populations during metastatic progression and immunotherapy response. **Nat Commun 13: 6539.**
4. Deng N et al., (2022). Deep whole genome sequencing identifies recurrent genomic alterations in commonly used breast cancer cell lines and patient-derived xenograft models. **Breast Cancer Res 24: 63.**
5. Papanicolaou M et al., (2022). Temporal profiling of the breast tumour microenvironment reveals collagen XII as a driver of metastasis. **Nat Commun 13: 4587.**
6. Roden D and Swarbrick A. (2022) Mapping the cancer cell states conserved across solid tumors. **Nat Genet 54: 1066-1067.**
7. Crist SB et al., (2022). Unchecked oxidative stress in skeletal muscle prevents outgrowth of disseminated tumour cells. **Nat Cell Biol 24: 538-553.**
8. Holliday H et al., (2022). miR-99b-5p, miR-380-3p, and miR-485-3p are novel chemosensitizing miRNAs in high-risk neuroblastoma. **Mol Ther 30:1 119-1134.**
9. Meyer B et al., (2021). Identification of DNA methylation biomarkers with potential to predict response to neoadjuvant chemotherapy in triple-negative breast cancer. **Clin Epigenetics 13: 226.**
10. Andersson A et al., (2021). Spatial deconvolution of HER2-positive breast cancer delineates tumor-associated cell type interactions. **Nat Commun 12: 6012.**
11. Bergholtz H et al., (2021). Best Practices for Spatial Profiling for Breast Cancer Research with the GeoMx((R)) Digital Spatial Profiler. **Cancers (Basel) 13: 4456.**
12. Wu SZ et al., (2021). A single-cell and spatially resolved atlas of human breast cancers. **Nat Genet 53: 1334-1347.**
13. Chew NJ et al., (2021). Evaluation of FGFR targeting in breast cancer through interrogation of patient-derived models. **Breast Cancer Res 23: 82.**
14. Mulder K et al., (2021). Cross-tissue single-cell landscape of human monocytes and macrophages in health and disease. **Immunity 54: 1883-1900.**
15. Wu SZ and Swarbrick A (2021). Single-cell advances in stromal-leukocyte interactions in cancer. **Immunol Rev 302: 286-298.**
16. Holliday H, Khoury A and Swarbrick A. Chromatin immunoprecipitation of transcription factors and histone modifications in Comma-Dbeta mammary epithelial cells. **STAR Protoc 2: 100514.**
17. Wu SZ et al., (2021). Cryopreservation of human cancers conserves tumour heterogeneity for single-cell multi-omics analysis. **Genome Med 13: 81.**

18. Holliday H et al., (2021). Inhibitor of Differentiation 4 (ID4) represses mammary myoepithelial differentiation via inhibition of HEB**. iScience 24: 102072.**
19. Hickey TE et al., (2021). The androgen receptor is a tumor suppressor in estrogen receptor-positive breast cancer. **Nat Med 27: 310-320.**
20. McEvoy CR et al., (2021). A MXI1-NUTM1 fusion protein with MYC-like activity suggests a novel oncogenic mechanism in a subset of NUTM1-rearranged tumors. **Lab Invest. 101: 26-37.**
21. Millar EK et al., (2020). Tumour Stroma Ratio Assessment Using Digital Image Analysis Predicts Survival in Triple Negative and Luminal Breast Cancer. **Cancers (Basel) 12: 3749.**
22. Thankamony AP et al., (2020). Targeting the Id1-Kif11 Axis in Triple-Negative Breast Cancer Using Combination Therapy. **Biomolecules 10: 1295.**
23. Harvey K et al., (2020). Stromal cell diversity associated with immune evasion in human triple-negative breast cancer. **EMBO J 39: e104063.**
24. Portman N et al., (2020). MDM2 inhibition in combination with endocrine therapy and CDK4/6 inhibition for the treatment of ER-positive breast cancer. **Breast Cancer Res 22: 87.**
25. Teo WS et al., (2020). Id Proteins Promote a Cancer Stem Cell Phenotype in Mouse Models of Triple Negative Breast Cancer via Negative Regulation of Robo1. **Front Cell Dev Biol 8: 552.**
26. Baker LA et al., (2020). Proteogenomic analysis of Inhibitor of Differentiation 4 (ID4) in basal-like breast cancer. **Breast Cancer Res 22: 63.**
27. Owen KL et al., (2020). Prostate cancer cell-intrinsic interferon signaling regulates dormancy and metastatic outgrowth in bone. **EMBO Rep 21: e50162.**
28. Piggin CL et al., (2020). ELF5 modulates the estrogen receptor cistrome in breast cancer. **PLoS Genet 16: e1008531.**
29. Hoque M et al., (2020). Annexin A6 improves anti-migratory and anti-invasive properties of tyrosine kinase inhibitors in EGFR overexpressing human squamous epithelial cells. **FEBS J 287: 2961-2978.**
30. McCabe MJ et al., (2019). Development and validation of a targeted gene sequencing panel for application to disparate cancers. Sci Rep 9: 17052.
31. Brockwell NK et al., (2019). Tumor inherent interferon regulators as biomarkers of long-term chemotherapeutic response in TNBC. **NPJ Precis Oncol 3: 21.**
32. Singh M et al., (2019). High-throughput targeted long-read single cell sequencing reveals the clonal and transcriptional landscape of lymphocytes. **Nat Commun 10: 3120.**
33. Khoo WH et al., (2019). A niche-dependent myeloid transcriptome signature defines dormant myeloma cells. **Blood 134: 30-43.**
34. Chia K et al., (2019). Non-canonical AR activity facilitates endocrine resistance in breast cancer. **Endocr Relat Cancer 26: 251-264.**