Ankur Sharma, Ph.D.

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Career Summary:

From 2014-2020: I am an EMCR and key opinion leader in single cell genomics and spatial transcriptomics. I obtained my PhD from the Indian Institute of Science (IISc) in 2014 (awarded the best PhD thesis award and *4x first author publications*). After a short post-doc with Dr. Rafi Kopan at Cincinnati Children's Hospital and Medical Centre (*1x Molecular Cell*), Ohio, USA *(Apr 2014- July 2015),* I was recruited to the Genome Institute of Singapore to establish single cell genomics in cancer research *(July 2015- March 2020)*. This work was recognized with multiple awards (GIS Outstanding Clinical Partnership Award, Conquer Cancer® The ASCO Foundation Merit Award, University of British Columbia co-op Supervisor recognition Award, and 10x Genomics Clinical Translation Research Network) and publications (total of 10 high-impact publications). In 2020, Dr Sharma was promoted to the Research Scientist *(Apr 2020- Jan 2021)* position. In 2020, April, I was offered a laboratory head position at Curtin University and Harry Perkins Institute, due to COVID I started my position February 2021.

From 2021-2023: I joined Curtin University in February 2021, and since then, I have consistently exceeded the expectations for a level C Research Academic. I have performed exceptionally at the national and international level, which is evident from securing the prestigious NHMRC Ideas grant (1.2 million AUD) and MRFF EMCR grant (2.4 million AUD) in my first attempt and publishing in high-impact journals such as *2x Cell (IF 64.5), 1x Nature Reviews Cancer (IF 78.5), 1x Science (IF 56.9), and 2x Immunity (IF 32.4)*. Despite starting my laboratory during a worldwide pandemic and becoming a first-time father within the same year (July 2021), I have remained productive and have gained national and international recognition, as exemplified by ~50 invited talks in the last three years.

Current Appointments and Roles:

Harry Perkins Institute of Medical Research, Perth, WA

- **Laboratory Head**, Oncofetal Ecosystem laboratory

Curtin University, Perth, WA

- **Senior Research Fellow**, Curtin Medical School
- **Program Lead**, Curtin Health Innovation Research Institute (CHIRI)

Liver Cancer Collaborative, Perth, WA

- **Genomics Lead**, Governance Group Member

Agency of Science and Technology, Singapore

- **Adjunct Principal Investigator**, Institute of Molecular and Cellular Biology (IMCB)

Duke-National University of Singapore, Singapore

- **Adjunct Principal Investigator**, OBGYN Academic Clinical Programs

KK Women's and Children's Hospital, Singapore

- **Visiting Scientist**, KK Research Centre (KKRC)

University of Western Australia, Perth, WA

- **Adjunct Senior Research Fellow**, Centre for Medical Research

Previous Appointments and Roles:

Agency of Science and Technology, Singapore

- **Research Scientist**, Genome Institute of Singapore (Apr 2020- Jan 2021)
- **Research Associate**, Genome Institute of Singapore (Apr 2018- Mar 2020)
- **Post-doctoral Fellow**, Genome Institute of Singapore (July 2015- Mar 2018)

Cincinnati Children's Hospital and Medical Centre, Ohio, USA

- **Research Fellow**, Division of Developmental Biology (Apr 2014- July 2015)

Leadership roles:

- **Genomics Lead**, Liver Cancer Collaborative, WA
- **Co-Lead** of NanoString-Curtin Centre of Excellence
- **National Organizing committee** member of Oz Single Cell Consortium
- **Founding member**, Spatial Temporal Omics Consortium

Education:

- **Ph.D.**, 2014, Department of Molecular Reproduction Development and Genetics, Indian Institute of Science (IISc), Bangalore

  Mrs. C. V. Hanumantha Rao Medal for Best PhD thesis

  Thesis: Unfolding the Mechanism of Notch1 Receptor Activation: Implications In Cancer Stem Cell Targeting

- **M.Sc.**, 2008, Molecular and Human Genetics, Jiwaji University, Gwalior, India

- **B.Sc.,** 2006, Biotechnology, H.N.B. Garhwal University, Dehradun, India

Awards and Honours:

- 2020 10x Genomics CTRN gold level member
- 2019 University of British Columbia co-op **Supervisor recognition Award**
- 2019 **Conquer Cancer® The ASCO Foundation Merit Award 2019**
- 2019 **Co-chair** Liver discussion session at Human Cell Atlas Meeting
- 2019 **GIS Outstanding Clinical Partnership Award**
- 2015 **Best Question award** at CCHMC developmental biology annual retreat
- 2014 **Mrs. C. V. Hanumantha Rao Medal** for Best PhD thesis, Indian Institute of Science
- 2013 **International Society of Stem Cell Research travel grant**
- 2010 **CSIR-UGC (NET)** Award of eligibility for Senior Research Fellowship
- 2008 **CSIR-UGC (NET)** Award of eligibility for Junior Research Fellowship

Membership of scientific associations:

- **Human Cell Atlas** (2018- present)
- Associate Member of **"American Association of Cancer Research"** (2012-present)
- (Member ID-260015)
- Associate Member of **"International Society of Stem Cell Research"** (2012-present)
- Associate Member of **"Indian Society of Developmental Biologist"** (2013-present)
- Member "**Gastroenterological Society of Australia (GESA)"** (2021-present)
- Member **"Australasian Gastro-Intestinal Trials Group"** (2021-present)
- Member **"Australasian Society of Immunology"** (2021-present)

Teaching:

Teaching/Ph.D. Supervision:

My primary teaching responsibility is training Honours and PhD students in my laboratory. I currently have seven PhD students and two Honours students. All my PhD students have secured full fee-paying international scholarships, including top-up scholarships for two students.

Lectures and Classes:

I teach cancer genomics and precision oncology to 3rd-year undergraduates in MEDI3018 'Stem cells and regenerative medicine' (course coordinator Dr Ricky Lareu) and MEDI4000 'Laboratory Medicine unit' (course coordinator Dr Paul Ellery) units, enabling exposure to my research field, experimental approaches, and research programs to undergraduates.

Ph.D. Supervision:

Ms. Rhea Pai (Primary Supervisor, 2021-)
Awarded LCC top-up scholarship
Mr Ashley Soet (Co-Supervisor, 2021-)
Ms. Soumi Chatterjee (Primary Supervisor, 2022-)
Ms. Chinnu Jeeard (Primary Supervisor, 2023-)
Ms. Merrin Mary Eapen (Primary Supervisor, 2023-)
Mr. Shaozhi Hou (Primary Supervisor, 2023-)
Ms. Danamma Kalavikatte (Primary Supervisor, 2023-)

Honours Supervision:

Mr. Joren Regan (2023-)
Mr. Chaki Ramesh (2023-)

Postdoctoral Fellows:

Dr. Jennifer Currenti (2022-)
Awarded Perkins ECR grant, co-CI on MRFF grant (CIA Sharma)
Dr. Saurabh Gupta (2022-)
co-CI on MRFF grant (CIA Sharma)
Dr. Ziyi Li (offer letter pending)

Research Office:

Dr. Abhishek Singh (2023-)

Teaching via writing invited Reviews in prestigious journals:

1. **Sharma A,*** Blériot C, Currenti J, & Ginhoux F (2022). Oncofetal reprogramming in tumour development and progression. **Nature Review Cancer**, *22*(10), 593-602. (IF 78.5)

2. Currenti J, Mishra A, Wallace M, George J, **Sharma A*** (2023). Immunosuppressive mechanisms of oncofetal reprogramming in the tumor microenvironment: Implications in Immunotherapy response. **Biochem Soc Trans** *51*(2), 597-612 (IF 5.4)

3. Seow JJ, Wong RM, Pai R, **Sharma A***. (2020) Single-Cell RNA Sequencing for Precision Oncology: Current State-of-Art. **Journal of the Indian Institute of Science** *100*, 579-588 (IF 2.5)

Research:

Research Grants:

Since the start of my lab in Feb 2021, I have received a total of ~$4.0 million as CI and ~$30 million as AI. I successfully obtained my first NHMRC grant ($1.2 million) and MRFF EMCR ($2.4 million) within the first two years of my arrival in Australia, with a score of 6.3/7 which is hallmark of my excellence as laboratory head.

Category 1 Grants:

- **MRFF EMCR Grant** 2023-2026, $2,350,700.00 **CI-A Ankur Sharma**, TRACKERx: Biomarkers to predicting relapse in early-stage hepatocellular carcinoma

- **NHMRC Ideas Grant**, APP2010795, 2022-2025, $1,195,455.00, **CI-A Ankur Sharma**, Oncofetal Ecosystem in advanced hepatocellular carcinoma: Implications for identifying Immunotherapy response.

- **NHMRC Ideas Grant**, APP2001514, 2021-2024, $749,272.00, **AI Ankur Sharma**, Identification of therapy-resistant cells driving relapse in Medulloblastoma from integrated spatial transcriptomics and tissue imaging.

- **National Breast Cancer Foundation (NBCF) program grant**, 2022-2027, $650,000, **AI Ankur Sharma** Harnessing the immune system to develop new therapies for breast cancer.

Other Grants:

- **Cancer Council New South Wales**, program grants, APP2013068, 2022-2025, $449,356, **CID Ankur Sharma,** Identification and Targeting of a new subtype of estrogen receptor positive breast cancer.

- **'Defeating Primary Liver Cancer' Program Grant**, 2020-2025, total $10,800,000, Cancer Research Trust $5,000,000, $5,800,000 support from the Minderoo Foundation, Curtin University, UWA, Harry Perkins Institute, WA Department of Health and the

McCusker Foundation, Lead Investigators Nina Tirnitz-Parker and Peter Leedman, Perth Australia **AI Ankur Sharma**

- **NanoString GeoMx Centre of Excellence** for Digital Spatial Profiling (to be launched in the second half of 2021), $590,075 Equipment and $172,964 Salary Support Curtin University, $20,000 Seed Grant NanoString, Lead Investigators **Ankur Sharma** and Nina Tirnitz-Parker Perth WA
- Curtin University and Harry Perkins Start-up Package, 2021-2025, CI Ankur Sharma

- **NMRC, Young Investigator grant**, NMRC/MOH-OFYIRG18nov-0015, 2019-2022, $250,000, CI Ankur Sharma, Single-cell RNA-seq in combination with CRISPR screening to Identify mode of Immunoresistance in Metastatic Breast Cancers

- **NMRC, Open Fund-Large Collaborative Grant**, (OFLCG21JUN-0016), 2022-2027, $25,000,000, PLANet 2.0 Precision Medicine in Liver Cancer across an Asia-Pacific Network, **AI Ankur Sharma**

- **Perkins Collaboration Award**, 2022 CIB Sharma, 100,000 AUD, Defining the immune environment of therapy-resistant melanoma at single-cell spatial resolution

Publications: Top 5 in 5

Publication 1:
SHARMA*, et al., Onco-fetal reprogramming of endothelial cells drives immunosuppressive macrophages in hepatocellular carcinoma. ***Cell***. Oct 15;183(2):377-94. 2020 **(IF-64.5, citations 247)**
Publication 2:
Mulder, .., SHARMA, et al., Cross-tissue single-cell landscape of human monocytes and macrophages in health and disease. ***Immunity***. 54 (8), 1883-1900. e5. 2021 **(IF-34, citations 160)**
Publication 3:
Mishra, .., SHARMA, et al., Human fetal Immunity and microbial priming during early development. ***Cell***. June 24; 184, 1–16. 2021 **(IF-64.5, citations 130)**
Publication 4:
SHARMA*, et al., Oncofetal reprogramming in tumor development and progression. ***Nature Reviews Cancer***. **(IF-78.8, citations 11)**
Publication 5:
SHARMA*, et al., Longitudinal single-cell RNA sequencing of patient-derived primary cells reveals drug-induced infidelity in stem cell hierarchy. ***Nature communications***. 22;9(1):1-7. 2018 **(IF-17.69, citations 126)**

These papers have been selected from >15 publications in the last five years.
Publication #1 describes my seminal contribution leading to conceptual advances in liver cancer. This work was published in Cell (#1 in Biology), where we discovered fetal-like cells in the hepatocellular carcinoma (HCC) microenvironment. This work resulted in the development of a new field of 'Oncofetal ecosystem' and has been cited ~250times within the last two years. More importantly, this work has led to the foundation of new insights into the clinical relevance of the oncofetal ecosystem in HCC (Zhu et al NatMed 2022). We have extended this work to develop the oncofetal ecosystem as a biomarker of therapy response and

launched an investigator-initiated trial (PLANET2.0) with CII Chow. This work led to Publication #2 where we discovered fetal-like macrophages in a pan-cancer analysis of human macrophages. This work is published in Immunity (#1 in Immunology) and has been cited >160 times within one year. The technologies we established in Publication #1, were instrumental in understanding the priming of the human immune system during fetal development and contributed to Publication #3 in the journal Cell (#1 in Biology). This work has been cited >130 times within one year. The discovery of the oncofetal ecosystem resulted in multiple invited talks, including Lorne Cancer, where the editor of Nature Reviews Cancer (Top Cancer journal) invited me to contribute a review article. This led to Publication #4 in Nature Reviews Cancer, where we described the concept of the oncofetal ecosystem and its implication in precision medicine. Publication #5 in Nature Comms shows the power of scRNAseq in understanding tumour evolution under drug resistance (cites 126).
My oncofetal work provides the foundation of the DEFINERx and TRACKERx programs and helps towards the development of novel diagnostic tests to predict relapse in HCC.

1. Full publication list: (* corresponding author)

Google Scholar

Refereed journal articles:

1. Li Z, Pai R, Guo W, Liu L, Singh A, Bai Y, Yang B, .., Chow P, Ginhoux F*, **Sharma A***. (2023) Presence of onco-fetal neighborhoods in hepatocellular carcinoma is associated with relapse and response to immunotherapy (in revision)

2. Singh P, …. **Sharma A,** …. YadavV. (2023) Taurine, a semi-essential micronutrient, is a driver of normative aging **Science** *380* (6649), eabn9257 (IF 63.71)

3. Currenti J, Qiao L, Pai R, Gupta S, Khyriem C, Wise K, Sun X, Armstrong J, Crane J, Pathak S, Yang B, George J, Plummer J, Martelotto L*, **Sharma A***. STOmics-GenX: CRISPR based approach to improve cell identity specific gene detection from spatially resolved transcriptomics (in press) **Advanced Biology** (IF 5)

4. Khan MM, Boufaied N, Yeganeh M, Ghosh A, Kandhi R, Bagheri R, Petkiewicz S, **Sharma A**, Yoshimura A, Ferbeyre G, Labbe DP. (2021) SOCS1 Deficiency Promotes Hepatocellular Carcinoma via SOCS3-Dependent CDKN1A Induction and NRF2 Activation. **Cancers** *15*(3), 905 (IF 6)

5. Mishra A, Lai GC, Yao LJ, Aung TT, .., **Sharma A**, Fuks G, Straussman R, Pavelka N, Malleret B, McGovern N, Albani S, Chan J, Ginhoux F. (2021) Human fetal immunity and microbial priming during early development **Cell** *184*(13), 3394-3409 (IF 66.8)

6. Blériot C, Barreby E, Dunsmore G, Ballaire R, Chakarov S, Ficht X, Simone GD, .. **Sharma A**, Howland S, Chen J, Bajenoff M, Yvan-Charvet L, Venteclef N, Iannacone M, Aouadi M, Ginhoux F (2021) A subset of Kupffer cells regulates metabolism through the expression of CD36. **Immunity**. *54*(9), 2101-2116 (IF 43.47)

7. Mulder, K., Patel, A. A., Kong, W. T., Piot, C., Halitzki, E., Dunsmore, G., ... & **Sharma A**, Chen J, Silvin A, Bertoletti A, Bleriot C, Dutertre C, Ginhoux, F. (2021).

Cross-tissue single-cell landscape of human monocytes and macrophages in health and disease. **Immunity**. *54*(8), 1883-1900 (IF 43.47)

8. Suphavilai C, Chia S, **Sharma A**, Tu L, Da Silva R P, Mongia A, ... & Nagarajan N (2021). Predicting heterogeneity in clone-specific therapeutic vulnerabilities using single-cell transcriptomic signatures. **Genome Medicine**, *13*(1), 1-14. (IF 15.26)

9. Seow JW, Pai R, Mishra A, Shepherdson E, Lim TKH, Goh BK, Chan JK, Chow PK*, Ginhoux F*, DasGupta R*, **Sharma A*** (2021) Single-Cell RNA-seq reveals angiotensin-converting enzyme 2 and transmembrane serine protease 2 expression in TROP2+ liver progenitor cells: implications in coronavirus disease 2019-Associated liver dysfunction. ***Frontiers in Medicine*** *8,* 603374 (IF 5.05)

10. **Sharma A***, Seow JJ, Dutertre CA, Pai R, Blériot C, Mishra A, Wong RM, Singh G, Sudhagar S, Khalilnezhad S, Erdal S, Teo HM, Khalilnezhad A, Chakarov S, Lim T, Fui A, Chieh A, Chung C, Bonney GK, Goh B, Chan JKY, Chow PKH*, Ginhoux F*, DasGupta R* (2020) Onco-fetal reprogramming of endothelial cells drives immunosuppressive macrophages in hepatocellular carcinoma. **Cell**. *183*(2), 377-394 (IF 66.8)

11. Ravasio A, Myaing MZ, Chia S, Arora A, Sathe A, Cao EY, Bertocchi C, **Sharma A**, Arasi B, Chung VY, Greene AC Tan T, Chen Z, Ong HT, Iyer NG, Huang R, DasGupta R, Groves JT, Viasnoff V. (2020) Single-cell analysis of EphA clustering phenotypes to probe cancer cell heterogeneity. **Communications biology**. *3*(1), 429 (IF 6.26)

12. **Sharma A***, Cao EY, Kumar V, Zhang X, Leong HS, Wong AM, Ramakrishnan N, Hakimullah M, Teo HM, Chong FT, Chia S, Thangavelu MT, Kwang XL, Gupta R, Clark JR, Periyasamy G, Iyer NG*, DasGupta R*. (2018) Longitudinal single-cell RNA sequencing of patient-derived primary cells reveals drug-induced infidelity in stem cell hierarchy. **Nature communications**. *9*(1), 4931 (IF 17.69)

13. Chia S[1], Low JL[1], Zhang X[1], Kwang XL, Chong FT, **Sharma A**, Bertrand D, Toh SY, Leong HS, Thangavelu MT, Hwang JS, Lim KH, Skanthakumar T, Tan H, Su Y, Choo SH, Hentze H, Tan IB, Lezhava A, Tan P, Tan DW, Periyasamy G, Koh JL, Iyer NG, DasGupta R. (2017) Phenotype-driven precision oncology as a guide for clinical decisions one patient at a time. **Nature communications**. *8*(1), 435 (IF 17.69)

14. Hass MR, Liow HH, Chen X, **Sharma A**, Inoue YU, Inoue T, Reeb A, Martens A, Fulbright M, Raju S, Stevens M Boyle S, Park J, Weirauch MT, Brent MR, Kopan R. (2015) SpDamID: marking DNA bound by protein complexes identifies notch-dimer responsive enhancers. **Molecular cell**. *59*(4), 685-697 (IF 19.33)

15. **Sharma A**, Gadkari RA, Ramakanth SV, Padmanabhan K, Madhumathi DS, Devi L, Appaji L, Aster JC, Rangarajan A, Dighe RR. (2015) A novel monoclonal antibody against Notch1 targets leukemia-associated mutant Notch1 and depletes therapy resistant cancer stem cells in solid tumors. **Scientific reports**. *5*(1), 1-8. (IF 5)

16. Mittal S[1], **Sharma A**[1], Balaji SA[1], Gowda MC, Dighe RR, Kumar RV, Rangarajan A. (2014) Coordinate hyperactivation of Notch1 and Ras/MAPK pathways correlates with

poor patient survival: novel therapeutic strategy for aggressive breast cancers. **Molecular cancer therapeutics**. *13*(12), 3198-209. [1]*Joint First authors* (IF 6.0)

17. **Sharma A**, Rangarajan A, Dighe RR. (2013) Antibodies against the extracellular domain of human Notch1 receptor reveal the critical role of epidermal-growth-factor-like repeats 25–26in ligand binding and receptor activation. **Biochemical Journal**. *449*(2), 519-30. (IF 3.76)

18. **Sharma A**, Paranjape AN, Rangarajan A, Dighe RR. (2012) A monoclonal antibody against human Notch1 ligand–binding domain depletes subpopulation of putative breast cancer stem–like cells. **Molecular cancer therapeutics**. *11*(1), 77-86. (IF 6.0)

Technology Disclosure:

1. Cell based biomarkers of immunotherapy in hepatocellular carcinoma (Ankur Sharma, Florent Ginhoux, Ramanuj DasGupta, Pierce Chow) Singapore TD number: 10202007868Q

Preprints:

1. Rao N, Pai R, Mishra A, Ginhoux F, Chen J, **Sharma A***, Zafar H*. Charting spatial ligand-target activity using Renoir **bioRxiv** (under revision Nature Methods)

2. Pandey, N., Sharma, M., Mathur, A., ... **Sharma A** & Kumar, V. (2023). Deciphering the phenotypic heterogeneity and drug response in cancer cells using genome-wide activity and interaction of chromatin domains. **bioRxiv**, (under review Nat Comms)

Engagement:

Editorial Responsibilities:

Associate Editor Hepatoma Research (2021-)
Associate Editor Frontiers in Gastroenterology (2022-)
Associate Editor Immune System (2023-)

Book Editing: Spatial Transcriptomics (2023)

Manuscripts Review:

2020- present Nature Reviews Cancer, Cancer Cell, Nature Genetics, Immunity, Nature Immunology, Nature Biomedical Engineering, Gastroenterology, Science Immunology, Science Advances, Genome Biology, Nature Communications, Advanced Science, eLife, Genome Research

On average I review ~25 manuscripts per year.

Engagement via writing Commentaries:

1. **Sharma A**. (2019) Hiding in plain sight: epigenetic plasticity in drug-induced tumor evolution. **Epigenetics insights**. 12, 2516865719870760

2. **Sharma A**, DasGupta R. (2019) Tracking tumor evolution one-cell-at-a-time. **Molecular & cellular oncology**. *6*(3), 1590089

Engagement via Media:
Podcasts: https://podcasts.apple.com/us/podcast/ankur-sharma-ph-d-the-onco-fetal-ecosystem/id1613104197?i=1000592560137
Radio: https://www.abc.net.au/radio/programs/pm/energy-drinks-can-extend-your-life-not-quite/102464126
Video: https://www.youtube.com/watch?v=mVvsvrlw3Rw

Industry engagement:

- **Selvax** Cancer Immunotherapy (Support: PhD scholarship; started May 2021)
- **10x Genomics** (Support: in-kind reagents, reference site; started Nov 2021),
- **NanoString** (Support: in-kind reagents, Centre of Excellence; started July 2021)
- **BGI** (Support: Alpha Assess; started Oct 2021)
- **Illumina** (Support: in-kind reagents; started Apr 2022)
- **BGI (**Support: in-kind G400 sequencer, $500,000 AUD, May 2022)

Key collaborators:

Prof. Florent Ginhoux, (Gustave Roussy, France), Prof. Jacob George (WIMR, Sydney), Prof. Pierce Chow (National Cancer Center, Singapore), Prof. Rohini Sharma (Imperial College London), Prof. Jerry Chan (KK Women's and Children's Hospital), Prof. Shiv Sarin (ILBS, New Delhi), Dr. Archita Mishra (TKI, Perth), Dr. Michael Wallace (SCGH, Perth).

Committees:

- Curtin Medical School, **Research Committee (2021-2022)**
- Harry Perkins Institute of Medical Research, **Equity and Diversity Committee**
- Cancer Council WA, **pre-doctoral committee**
- NHMRC **Ideas and Development grant** review panel

Thesis Examiner:

- Dr. José Alquicira-Hernández (Supervised by A/Prof. Joseph Powell), University of Queensland, 2021
- Dr. Nadia Rajab (Supervised by Prof. Chris Wells), University of Melbourne, 2022
- Dr. Solal Chauquet (Supervised by Dr. Sonia Shah), University of Queensland, 2023
- Dr. Rosalia Quezada-Urban (Supervised by Dr. David Goode), PeterMac Cancer Center, University of Melbourne, 2023

Invited Conference/Symposia talks 2023-2019 (selected):

2023

- Granulocyte Meeting, Singapore
- Asia-Pacific Primary Liver Cancer Expert Meeting, Seoul
- Singapore Immunology Society meeting, Singapore
- WEHI Spatial biology day, Melbourne
- Lorne Cancer, Melbourne

- Spatial Biology Congress, Singapore
- Korean Society for Biochemistry and Molecular Biology, Busan
- Singapore Liver Cancer Consortium Meeting, Singapore
- International Conference on Cancer Biology, Chennai
- WestMead Institute Seminar Series, Sydney
- International Conference on Applied Bioinformatics, New Delhi

2022

- Multiomics-2022, Queensland
- Human Cell Atlas Asia, Bangkok
- Molecular Analysis for Precision Oncology Congress, Amsterdam
- Spatial Biology Congress, Hague
- Gastroenterological Society of Australia, Sydney
- Singapore Liver Cancer Consortium Meeting, Singapore
- Lorne Genome Australia, Melbourne
- BGI-Decode Spatial transcriptomics workshop, Melbourne
- CTSCB Stem Cell Seminar, Hongkong

2021

- Australasian Gastro-Intestinal Trials Group (AGITG), Sydney
- Japanese Cancer Association
- 10x genomics global spatial symposia
- Oz Single cell, Brisbane
- NanoString Spatial Summit, online
- Nanostring Cancer Transcriptomics Panel meeting, online
- Nature Webcast on Spatial transcriptomics in cancer research, online
- Olivia Newton John Cancer Research Institute, Melbourne
- Lorne Cancer, Expert panel on Spatial Transcriptomics
- Lorne Cancer, Melbourne

2020

- 10x Genomics APAC meeting Keynote Speaker
- ASI WA symposium, Peth
- NUHS Clinical Scientist Academy Seminar Series, Singapore
- Skin Research Institute of Singapore, Singapore
- NanoString Webinar

2019

- Convergence of Haematology and Immunology, China
- Human Cell Atlas Asia, Singapore
- 10x User Group Meeting, Singapore
- ASCO Breakthrough Meeting 2019, Bangkok
- Institute of Genomics and Integrative Biology, New Delhi
- Institute of Stem Cell and Medicine, Bangalore
- Phenotypic Heterogeneity in Tumors, Bangalore