



Australian Government



THE PRIME MINISTER'S
PRIZES FOR SCIENCE

Professor Sherene Loi MMBS (Hons) FRACP PhD FAHMS

Peter MacCallum Cancer Centre, Victoria

2021 FRANK FENNER PRIZE FOR LIFE SCIENTIST OF THE YEAR

- Professor Sherene Loi is a medical oncologist renowned for translating scientific findings into innovative treatments that can improve the survival of breast cancer patients in Australia and around the world. Her research into breast cancer has had a significant impact on clinical practice.
- She was the first person to show that immune cell infiltration of breast tumour tissue strongly predicts improved survival. This research led to the development of a standardised test of a unique immune biomarker: Tumour Infiltrating Lymphocytes (TILs).
- This biomarker is now part of routine pathology reporting for breast cancer in many countries, and was included in the 2019 World Health Organisation Classification of Tumours: Breast Tumours (also known as WHO Blue Book on Breast Tumours). It is also recognised by the European Society of Medical Oncology's early breast cancer guidelines and the St. Gallen (Switzerland) early breast cancer consensus guidelines.
- Professor Loi has also made a significant contribution to the first worldwide approval of immunotherapy for patients with triple negative breast cancer, which is the most aggressive type of breast cancer. She helped prove that immunotherapy – a type of cancer treatment that helps the immune system fight cancer – can prolong survival in patients with this advanced disease.
- She led the first global clinical trial of the immune checkpoint blockade in HER2-positive breast cancer, the first study to prove that boosting the immune response can be beneficial for patients.
- Professor Loi now leads a lab at Peter MacCallum Cancer Centre, which focuses on developing new therapeutic approaches for breast cancer patients using both genomics and immunology.
- She also has a busy breast cancer clinical practice where she specialises in the management and treatment of patients, in particular patients with HER2-positive breast cancer.
- Professor Loi's research is highly influential. Since 2018, she has ranked in the top one per cent of highly cited researchers globally by the Web of Science, publishing more than 240 peer-reviewed research articles in the field of clinical medicine.
- In 2020, she was also recognised with the Outstanding Investigator Award for Breast Cancer Research by the American Association of Cancer Research and the European Society of Clinical Oncology Award for Breast Cancer Research.
- Professor Loi is co-chair of the International Breast Cancer Study Group (IBCSG) Scientific Committee based in Switzerland, a non-Executive Board Member and Scientific Advisory Committee Member of the Breast Cancer Trials Group (BCT) of Australia/New Zealand, and a Board Member of Breast International Group, Belgium.





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CAREER HIGHLIGHTS

- 2021 Jian Zhou Medal recipient, Australian Academy of Health and Medical Sciences
- 2020 Outstanding Investigator Award for Breast Cancer Research, American Association of Cancer Research (AACR)
- 2020 Breast Cancer Research Award, European Society of Medical Oncology (ESMO)
- 2019 Bruce Cain Award for Clinical Research, New Zealand Society for Oncology
- 2019 Robert Sutherland Award for Excellence in Translational Research, Breast Cancer Trials Group of Australia/NZ
- 2018-2020 Clarivate Analytics – Highly Cited Researcher (Top one per cent) in the field of Clinical Medicine
- 2018-2022 Inaugural Endowed Chair, National Breast Cancer Research Foundation of Australia
- 2017 Fellow, Australian Academy of Health and Medical Sciences (AAHMS)
- 2016 'Accelerate Discovery' Individual Category Award, Peter MacCallum Cancer Centre
- 2015-2022 Research Fellow, Breast Cancer Research Foundation (New York)
- 2013 Highly Commended, L'Oréal Women in Science Award Australia and New Zealand
- 2012 Career Development Award, American Society of Clinical Oncology (ASCO)
- 2008 Neil Hamilton Fairley – Overseas Clinical Fellowship, National Health and Medical Research Council (NHRMC)