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A Pathway to Predicting Brain Tumours

An interview with **Gelareh Zadeh**

University Health Network/University of Toronto

2023 Canada Gairdner Momentum Award laureate

The majority of my clinical work focuses on removing brain tumours, so brain tumour surgery, especially benign tumours that happen in the skull base. And I do a lot of endoscopic and open surgery for that.

The majority of my research focuses on the tumours that I remove in my clinical practice. So one of the areas that we really need to advance our understanding of brain tumours is to be able to predict their outcome, their response to treatment, and most importantly longevity and what prevents them from recurrence, and what drives recurrence for an individual patient.

So where we're at in our research is coming up with biomarkers, signatures, and predictive modeling. We use genomic information to be able to more accurately diagnose and classify brain tumours, in particular meningiomas, and we've identified four new categories of meningiomas that to date have not been examined. And what's most important is that these four categories provide us with therapeutic options.

The other component of what we do in our research is to identify non-invasive biomarkers circulating within our bloodstream that we can use to make better diagnosis in order to avoid having to do invasive procedures. But the promise also is that we could use those biomarkers to in fact detect early recurrence.



The impact of the Canada Gairdner Momentum Award for me, it shows me, but hopefully others who are interested in this career path, that this level of recognition is possible for the work that we do. The fact that I've been given this award means that the work we are doing does make an impact.