# POTENTIAL CENTRAL NERVOUS SYSTEM TUMOUR BIOMARKERS IN BODY FLUIDS OF DOGS

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## INTRODUCTION

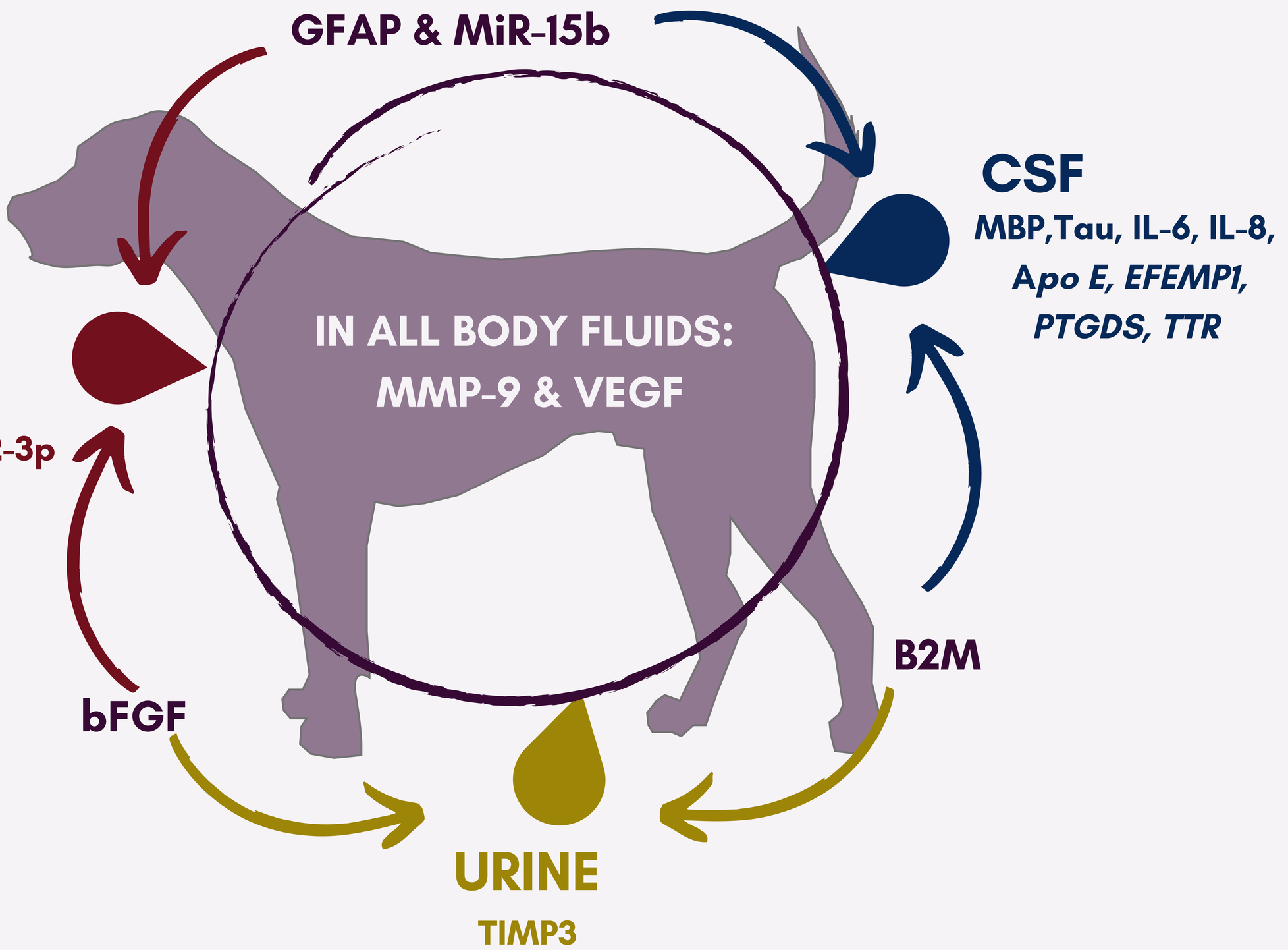
Dogs have the highest frequency of brain tumours among domestic animals, meningiomas and gliomas most frequently. Both types of tumours are very similar to human meningiomas and gliomas with respect to growth factors, receptors, initial cytogenetic expressions and pathophysiology.

## OBJECTIVES

• To review the biomarkers in body fluids (cerebrospinal fluid –CSF–, blood and urine) of primary central nervous system (CNS) tumours in humans.

• To identify which of these biomarkers could be useful for the diagnosis, prognosis and response to treatment of the most common primary CNS tumours in dogs.

## POTENTIAL BIOMARKERS

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## CONCLUSIONS

- CSF seems to have the best specificity and sensitivity to look for biomarkers as it is a direct link to the CNS.
- MiRNAs may be the best option to improve diagnosis as their presence in CSF might be strongly related to different brain tumours
- Due to the easiness of obtaining blood and urine, further studies could be of use to find suitable biomarkers in these fluids for the monitoring of tumour progression.