

In this project, we have produced a small series of micro-modules of brain tumors for medical students self-learning. The micro-modules cover the basic pathology, clinical features, and clinically useful biomarkers of diffuse gliomas, the most common type of primary adult brain cancer, with an overall aim in enhancing self-learning of medical students in brain cancers related knowledge. The micro-modules introduce important basic concepts of brain tumor pathology and some clinically-oriented concepts in terms of diagnostic, prognostic and treatment predictive molecular biomarkers to medical students.

The following is the list of micro-modules constructed in this project.

Micro-module title	Objectives
An overview of central nervous system tumors classification	<ul style="list-style-type: none"> <li>- To know the basic classification of commonly seen CNS tumors</li> <li>- To know the common types of tumor in children and adults</li> </ul>
Pathology of Astrocytomas	<ul style="list-style-type: none"> <li>- To understand the main histopathologic features and prognostic outcome of various subtypes of astrocytic tumors</li> </ul>
Pathology of oligodendrogliomas	<ul style="list-style-type: none"> <li>- To understand the main histopathologic features and prognostic outcome of various subtypes of oligodendroglial tumors</li> </ul>
Biomarkers of diffuse gliomas – IDH mutation	<ul style="list-style-type: none"> <li>- To know the clinical significances of IDH mutation in diffuse gliomas</li> <li>- To have a basic concept about the workflow in IDH mutational analysis</li> </ul>
Biomarkers of diffuse gliomas – 1p/19q codeletion	<ul style="list-style-type: none"> <li>- To know the clinical significances of 1p/19q codeletion in diffuse gliomas</li> <li>- To have a basic concept about the workflow in 1p/19q codeletion analysis</li> </ul>
Biomarkers of diffuse gliomas – MGMT promoter methylation	<ul style="list-style-type: none"> <li>- To know the clinical significances of MGMT promoter methylation in diffuse gliomas</li> <li>- To have a basic concept about the workflow in MGMT promoter methylation analysis</li> </ul>

The micro-modules are constructed in form of short video lectures of eight to ten minutes and have been uploaded to Blackboard Learn platform. From the preliminary evaluation results, we will put further efforts in increasing the awareness of the medical students about the availability of the micro-modules in the Blackboard Learning platform. Preliminary evaluation results also indicate that students would like to have micro-modules in the pathology teaching of other organs and systems. The micro-modules will be kept in the Blackboard Learn platform in the coming academic years which the platform has the track function so that we can continue to obtain the assess rate of the micro-modules. We will also continue the evaluation exercise after the relevant lecture / tutorial so as to obtain further feedback from the students. We will consider moving the micro-modules to the departmental teaching website after obtaining solid data so as to facilitate the convenience for students to assess the micro-modules.