Methylation Profiling

The Future of Tumor Diagnosis

Methylation profiling allows us to more **accurately identify** what type of brain tumor you have.

To learn what type of brain tumor you have, a physician called a pathologist looks at a sample of the tumor tissue under a **microscope**. What it looks like helps your care team decide how to treat it.

Methylation profiling tells your care team even more than what they can see through a microscope. This type of analysis studies the **genetic makeup** of the tumor.

Through a chemical process called methylation, we can see your tumor's **unique DNA pattern**, or profile. It's kind of like a fingerprint: Two different kinds of tumor have very different methylation fingerprints.
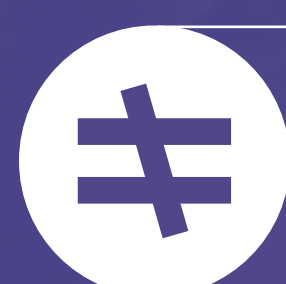
So, even though two tumors may look the same under a microscope, they can have very different profiles. That means they can **behave** very differently, and need different types of treatment.
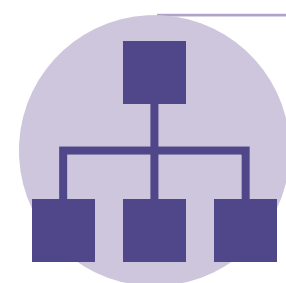
Methylation profiling is powerful.
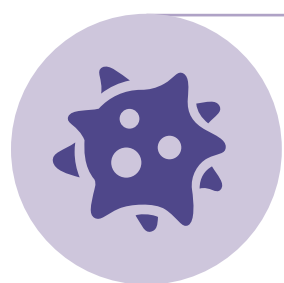
It helps us understand exactly **what type** of brain tumor you have.

It gives us information on a specific gene called MGMT, which helps **predict** how the tumor will respond to certain types of chemotherapy.

It can either **confirm** your diagnosis or tell us if the brain tumor is **different** from what it looks like under the microscope.

Each brain tumor that undergoes methylation profiling helps us build a **library of cancer types**. This will help us begin to learn about other types of tumors, too. Eventually, all types of cancer may be diagnosed with this technology.
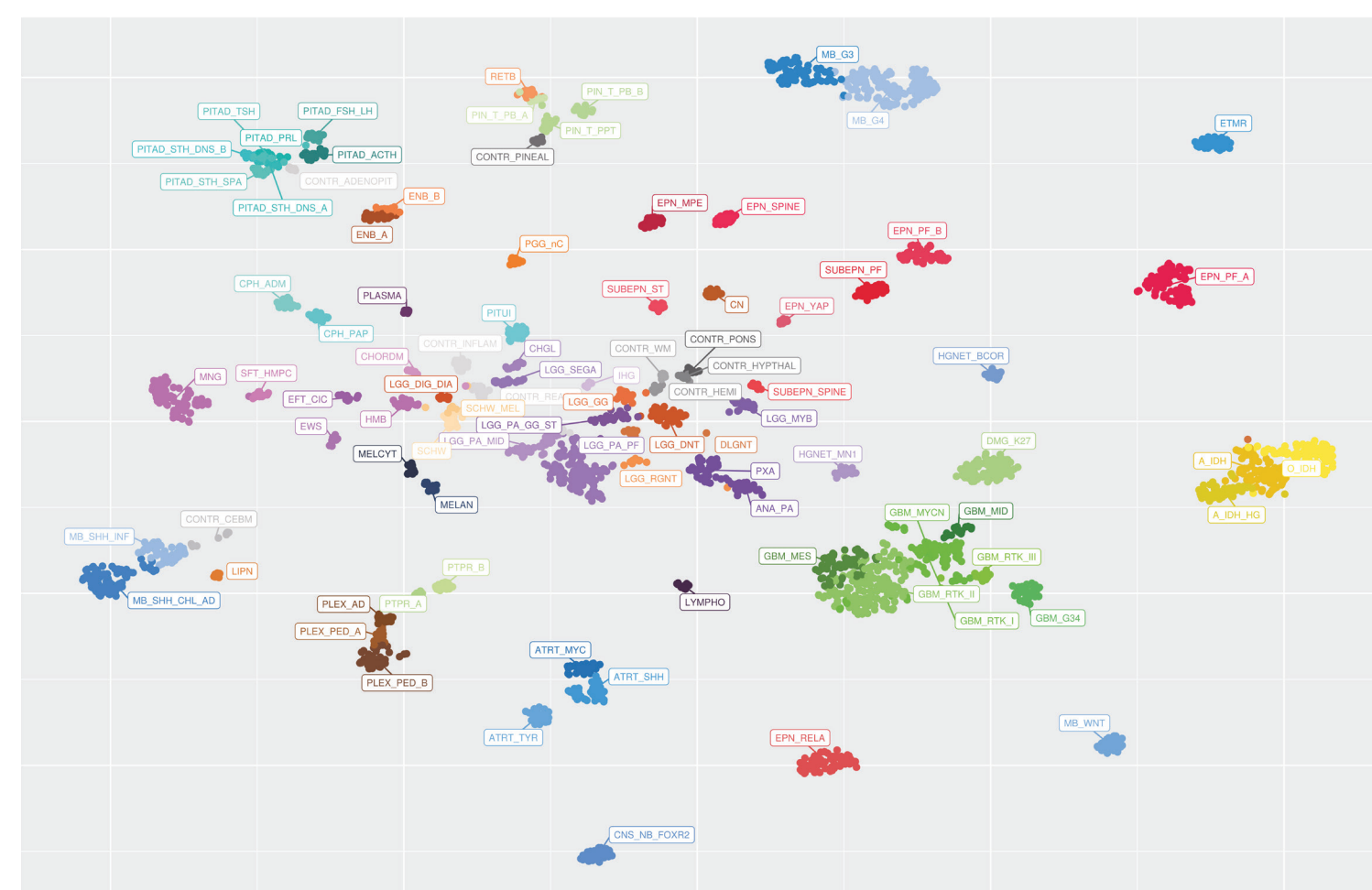
Example of methylation profiling database image