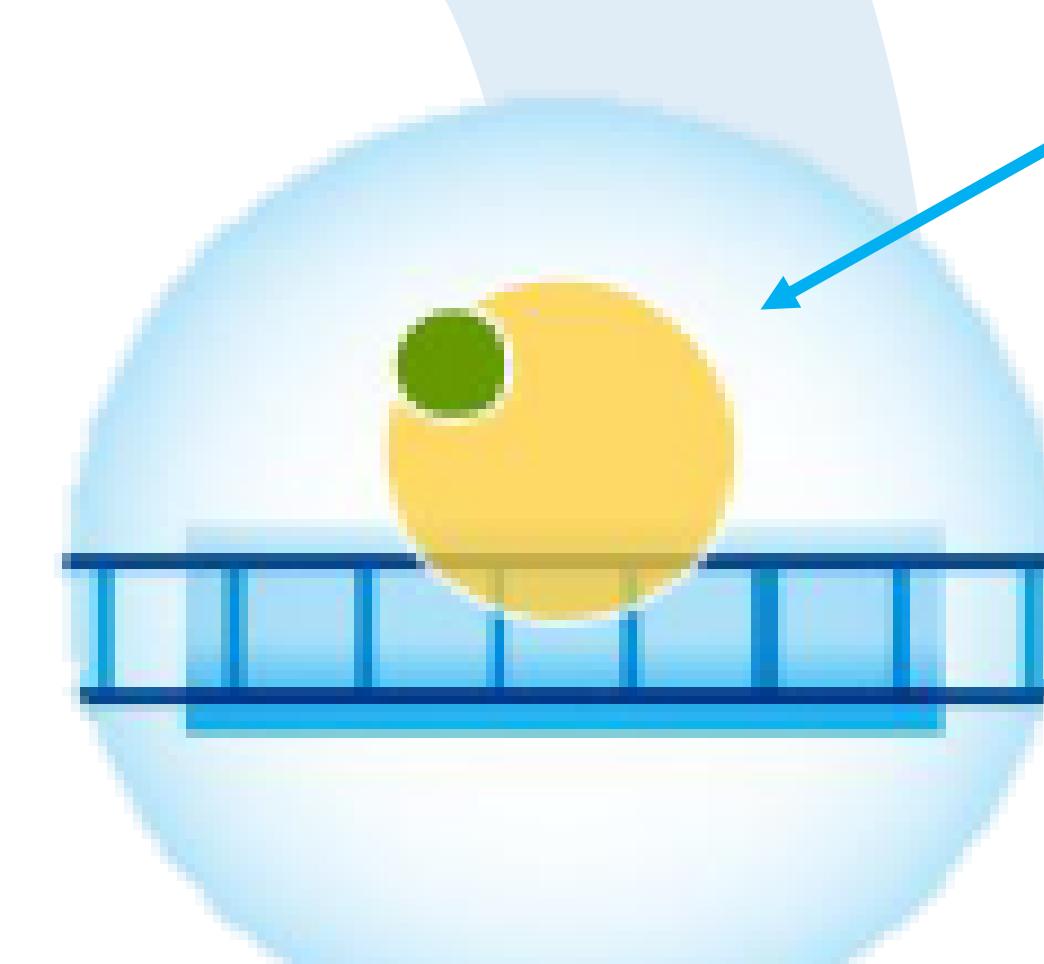
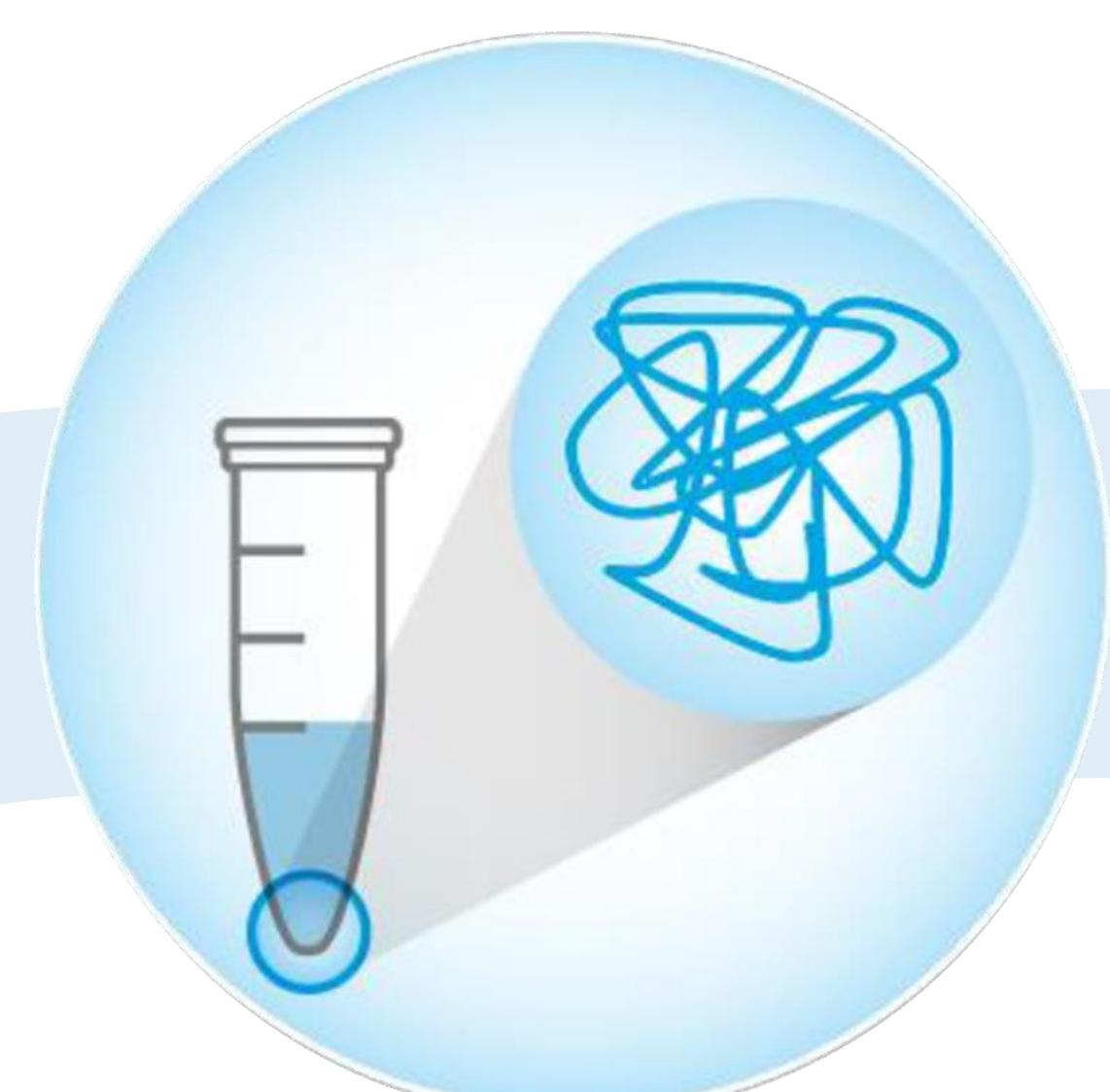
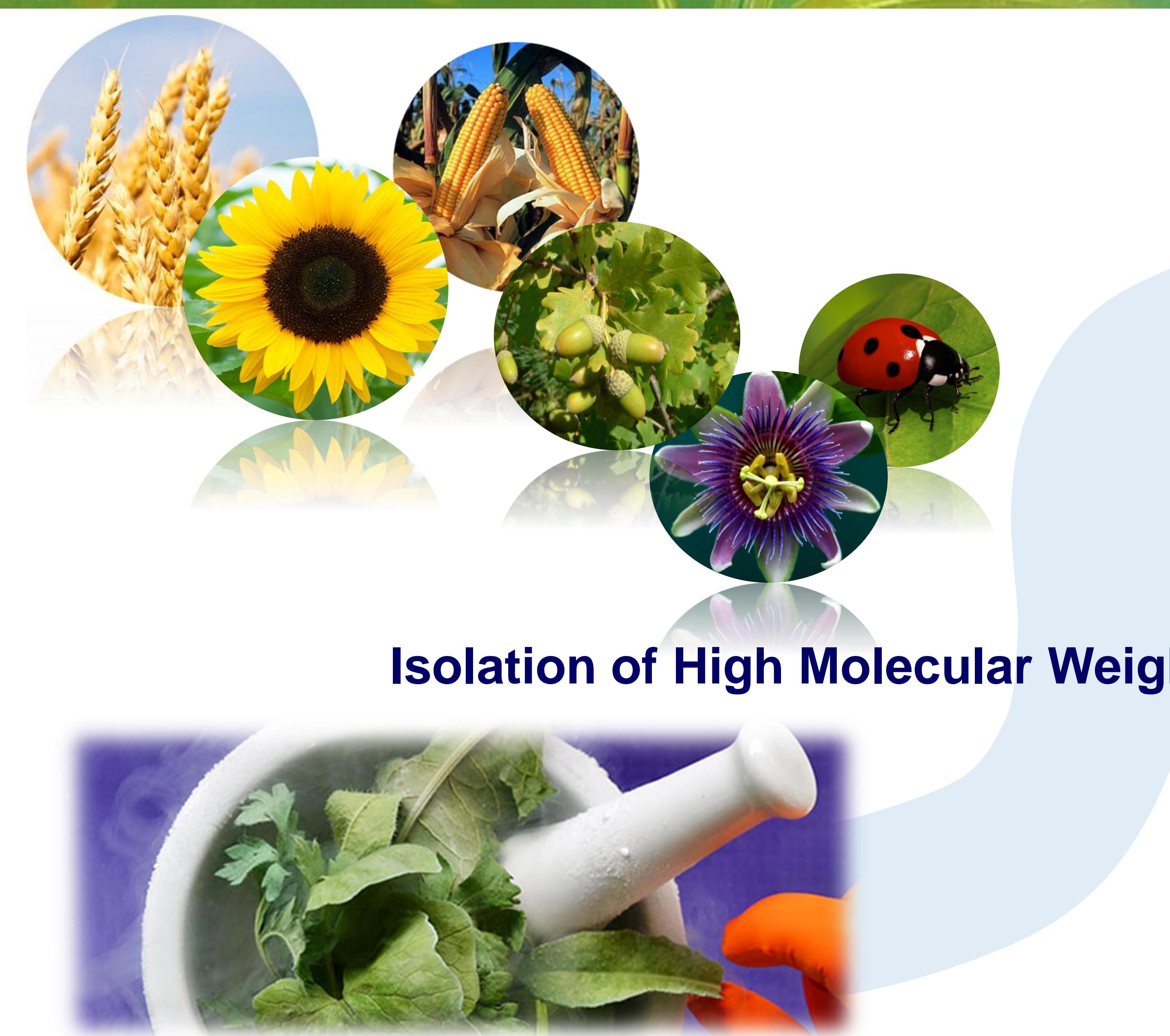


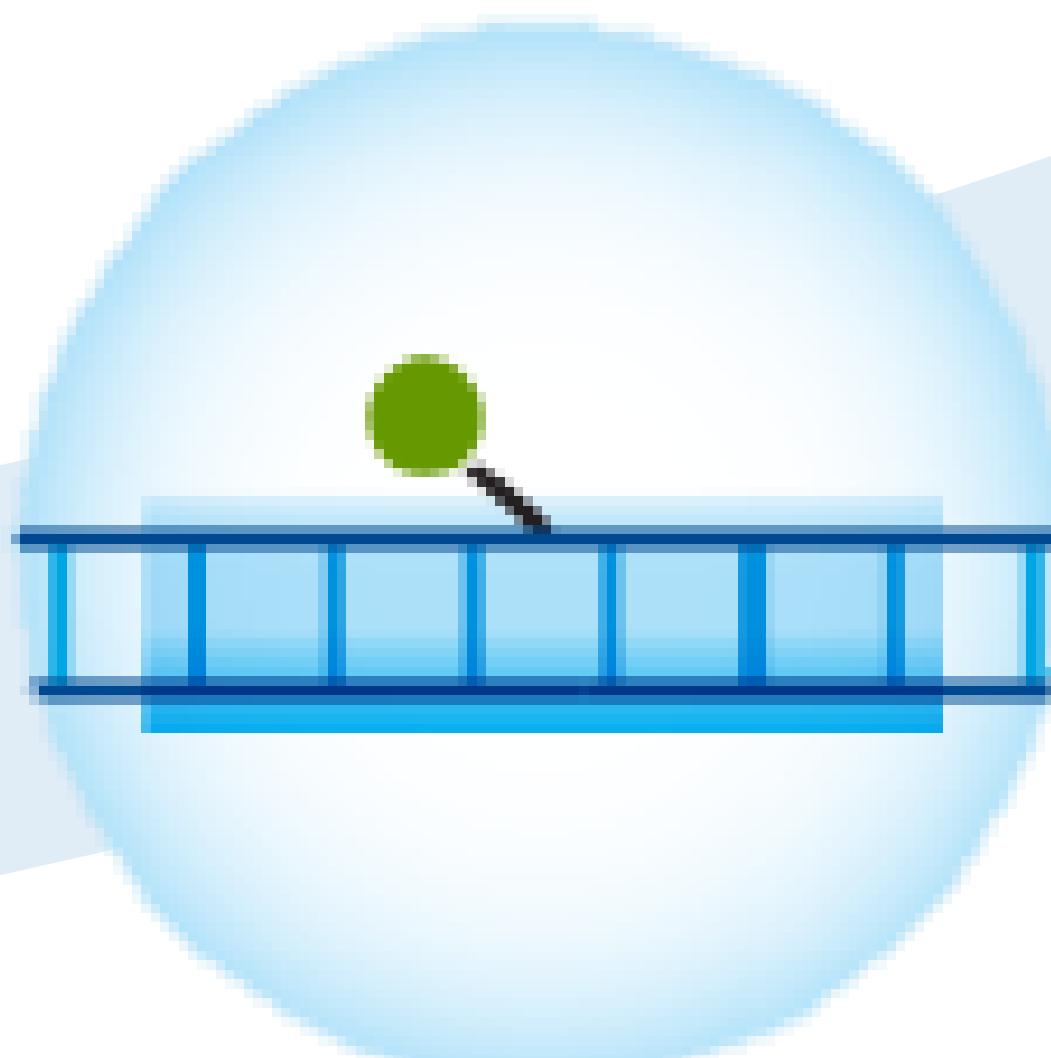
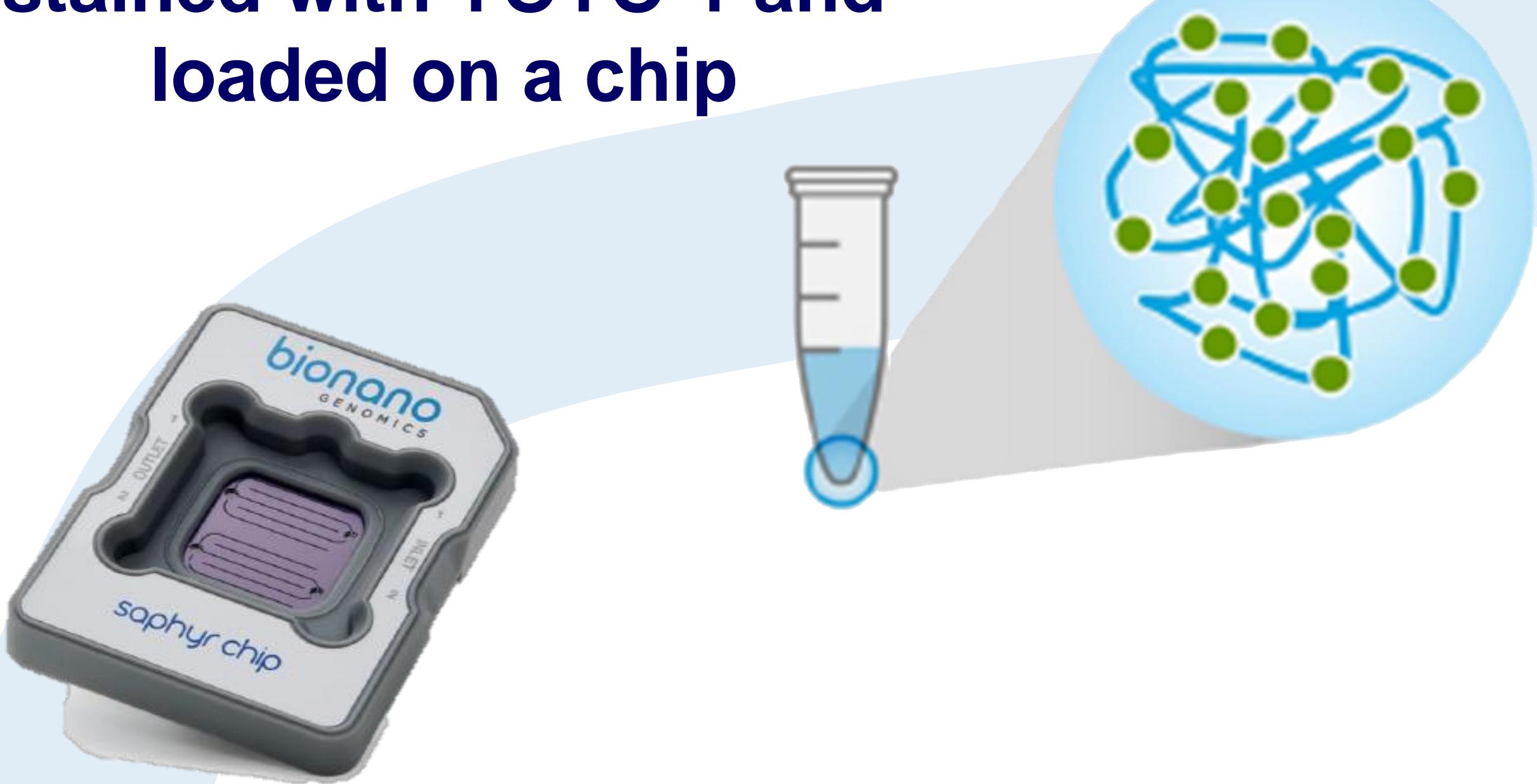
# Optical Mapping with BioNano Genomics Technology

## General workflow

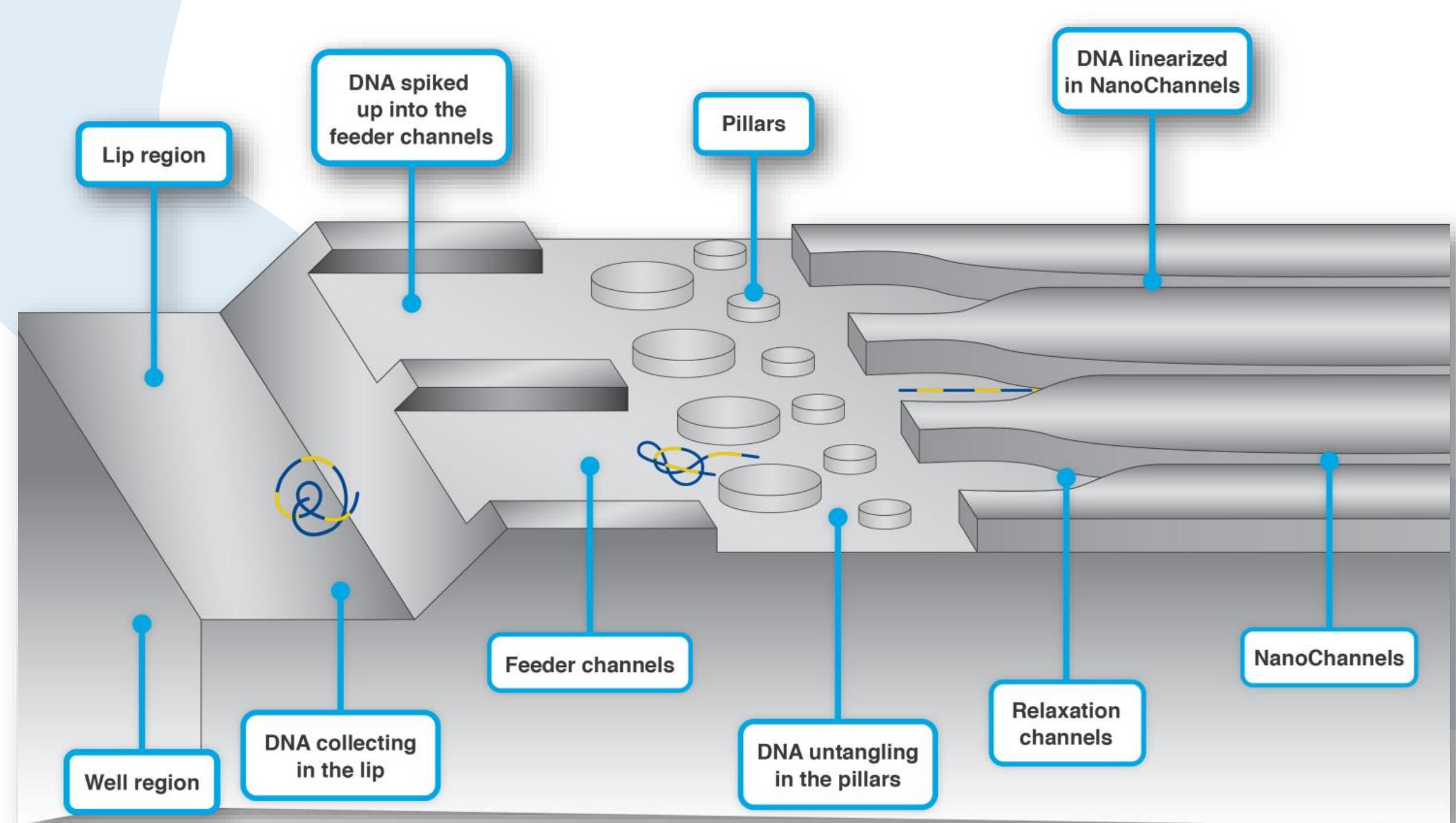


**The DLE enzyme directly binds at recognition sites**

**The labeled DNA is stained with YOYO-1 and loaded on a chip**



**Fluorescent label is fixed to enzyme recognition sites**

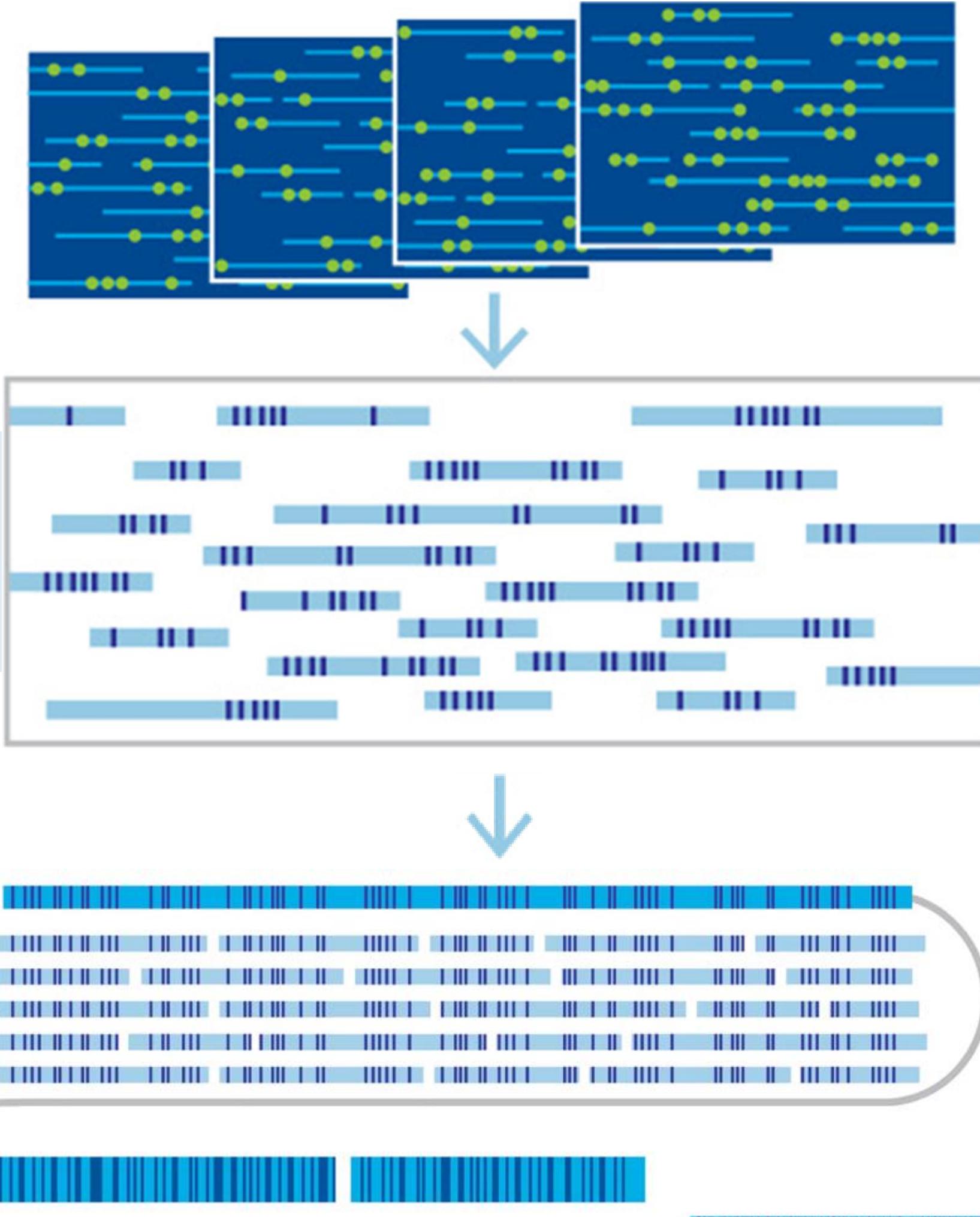


**DNA molecules are linearized in the NanoChannels**



**The Irys System collects images of linearized DNA molecules**

**Algorithms convert images into digital molecules**



**De Novo assembly is made to construct a consensus genome map**