

Surface fault rupture of the 2005 Pakistan earthquake

Reconnaissance field investigation conducted by our international team revealed the outline of the 65-km-long surface fault rupture associated with Mw 7.6 earthquake in northern Pakistan on October 8, 2005. Among the historically known large earthquakes along the Indian-Eurasian collision zone and elsewhere in the world, this earthquake provided very rare opportunity to study extensive surface rupture of reverse-fault type. More detailed study on this rupture in March 2006 will make great contribution to the evaluation of future earthquakes from active faults of this type.

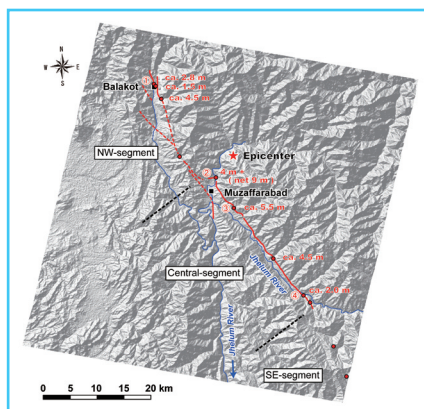


Figure 1: Surface fault rupture associated with the 2005 Pakistan earthquake occurred along pre-existing active faults.



Figure 2: Photographs of surface faulting. A: Tilting of ground in the town of Batakot. B, C and D: 2-5.5 m high fault scarps across river beds.

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Development of three major tools for research on sugar chains

Dramatic advances in sugar chain researches, the key for cancer, immunity, infections and regeneration medicine researches

Like proteins and nucleic acids, glycans, the third class of repeating biopolymers, have essential roles in living organisms. However, tools to synthesize and analyse the glycans have been lacking. Research Center for Glycoscience in AIST has successfully developed three important tools for glycomics research; a glycogene library, a preparation robot for the glycan library, and a rapid and sensitive analyzing system for glycans. Exploring the perplexities of life which cannot be explained with nucleic acids and proteins will be accelerated by using these innovative tools.

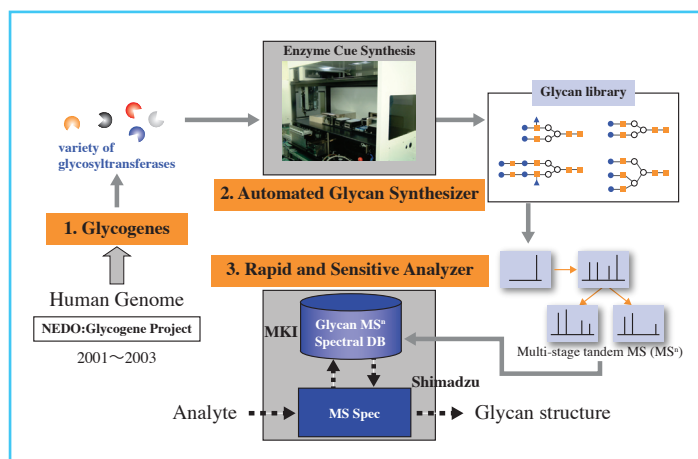


Figure 3: Three major tools for research on sugar chains.

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