### Ústav molekulární genetiky

## **SEMINÁŘ**

V PÁTEK 2.5. V 10.30 V PŘEDNÁŠKOVÉM SÁLE V PŘÍZEMÍ NOVÉ BUDOVY ÚMG

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# Identification and Functional Studies of Candidate Tumor Suppressor Genes, *BLU/ZMYND10, MMP19,* and *ADAMTS9,* in Nasopharyngeal Carcinoma

Using a monochromosome transfer approach we have identified critical regions associated with tumor suppressive ability on chromosome 3p21.3 in a nasopharyngeal carcinoma (NPC) cell line, HONE1. Several chromosome 3 candidate genes have been identified and shown to be down-regulated or lost in NPC cell lines, as well as clinical specimens, and to play an important role in NPC tumorigenicity. The *BLU/ZMYND10* gene functionally suppresses tumor formation in nude mice. The *ADAMTS9* gene is associated with metastatic NPC, is down-regulated by methylation, and is able to reduce colony formation *in vitro*. The *MMP19* gene, which maps to chromosome 12, is differentially expressed in *BLU/ZMYND10* transfectants compared to vector-alone controls. This gene is also down-regulated or lost in NPC cell lines and in primary tumors. It is able to suppress colony formation *in vitro*, but does not induce tumor suppression in nude mice. Ongoing studies are underway to elucidate its possible role in NPC tumorigenesis.

#### Všechny zájemce srdečně zve Radislav Sedláček