

## Stem cell factors and markers: Biomarkers for bladder cancer detection and target therapy

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Bladder cancer (BCa) is classified as non-muscle-invasive BC (NMIBC) or muscle-invasive BC (MIBC). Because the recurrence and mortality rates of BCa are high, suitable biomarkers for early detection and targeted therapy are needed. Cancer stem cells (CSCs) have been shown to contribute to tumorigenesis and therapeutic resistance. In a recent study we found that CSC factors can be detected in the urine of BCa patients with high sensitivity and specificity and targeting CSC pathways elicits a long-lasting therapeutic response by limiting CSC expansion following chemotherapy and EGFR inhibition in BCa.

### Biography

Mohammad Obaidul Hoque is working as an Associate Professor of Otolaryngology-Head and Neck Surgery, Urology and Oncology at Johns Hopkins University School of Medicine. He completed Dental and Oral Surgery Training at the Dhaka Dental College, Dhaka University, Bangladesh. He then moved to Japan for the completion of PhD degree, where he also completed Advanced Clinical Training in Oral and Maxillofacial Surgery and Oncology. After training in Japan, he worked in the Head and Neck Cancer Research Division as a Post-doctoral Fellow under the mentorship of David Sidransky. He joined as a Faculty Member in 2006 in the Department of Otolaryngology-Head and Neck Surgery. His research interests includes: a) understanding the molecular biologic basis of head and neck, lung and genitourinary cancer b) developing and validating genetic and epigenetic approaches for early cancer diagnosis, cancer risk assessment and cancer prognosis and c) identifying molecular alterations due to environmental exposures such as active smoking, passive smoking and arsenic.

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