

## Glioma Biomarkers

Santosh *et al.* \_\_\_\_\_ Page 1399Sreekanthreddy *et al.* \_\_\_\_\_ Page 1409

Two studies in this issue address the development of informative astrocytoma and glioblastoma (GBM) biomarkers. In the first study, Santosh and colleagues evaluated insulin-like growth factor binding protein isoforms 2, 3, and 5 (IGFBP-2,-3, and -5) in astrocytoma samples. The authors report that mRNA and protein expression levels of these three IGFBP isoforms were associated with increasing grades of astrocytoma malignancy. In the second study, Sreekanthreddy and colleagues used information from glioma microarray databases to identify informative serum biomarkers. The authors identify several novel serum biomarkers for glioblastoma. Specifically, they report that high serum osteopontin (OPN) levels are a poor prognostic indicator in GBMs.

## Tobacco-Specific Nitrosamines and Biomarkers

Ashley *et al.* \_\_\_\_\_ Page 1389

There are significant differences in the levels of carcinogenic tobacco-specific nitrosamines (TSNA) found in cigarettes from different countries. In this study, Ashley and colleagues evaluated how TSNA levels in used cigarette butts relate to the amounts of salivary nitrosamines and urinary nitrosamine metabolites of smokers from four different countries. The study reports a direct association between salivary nitrosamine and urinary nitrosamine metabolite levels. In addition, levels of both were significantly reduced in subjects smoking cigarettes with lower TSNA levels (from Canada and Australia) compared to smokers of high TSNA cigarettes (from the United States). These findings provide incentive for countries to adopt known tobacco curing practices that can lower cigarette TSNA levels.

## Chronic Infection and Lung Cancer Risk

Chaturvedi *et al.* \_\_\_\_\_ Page 1498

Although the bacterium, *Chlamydia pneumoniae* has been implicated in lung carcinogenesis, the lack of a validated marker for chronic *C. pneumoniae* infection has hampered the precise estimation of its role in lung cancer. Chaturvedi and colleagues studied the relationship between *C. pneumoniae* infection and prospective lung cancer risk by assaying the presence of antibodies against Chlamydial heat shock protein-60 (CHSP-60). They report that individuals seropositive for CHSP-60 antibodies had significantly increased lung cancer risk. CHSP-60-related risk did not differ significantly by lung cancer histology or smoking, and CHSP-60 seropositivity was associated with increased risk 2 to 5 years prior to lung cancer diagnosis. This work highlights the potential for lung cancer risk reduction through treatments targeting chronic pulmonary infection and inflammation.

## Urinary Biomarkers of Oxidative Assault

Il'yasova *et al.* \_\_\_\_\_ Page 1506

To help identify biomarkers that reliably monitor oxidative stress levels in humans, Il'yasova and colleagues report on the responsiveness of urinary biomarkers in breast cancer patients undergoing doxorubicin-based chemotherapy. The study monitored five urinary biomarkers of oxidative lipid modification: four F2-isoprostanes and one oxidative product of uric acid (allantoin). This study found that in all subjects, the levels of all five urinary biomarkers increased following doxorubicin chemotherapy. These encouraging findings suggest the use of these biomarkers to measure oxidative stress levels in humans.

# Cancer Epidemiology, Biomarkers & Prevention

**AACR** American Association  
for Cancer Research

## Highlights of This Issue

*Cancer Epidemiol Biomarkers Prev* 2010;19:1387.

**Updated version** Access the most recent version of this article at:  
<http://cebp.aacrjournals.org/content/19/6/1387>

**E-mail alerts** [Sign up to receive free email-alerts](#) related to this article or journal.

**Reprints and Subscriptions** To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at [pubs@aacr.org](mailto:pubs@aacr.org).

**Permissions** To request permission to re-use all or part of this article, use this link  
<http://cebp.aacrjournals.org/content/19/6/1387>.  
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.