

## **Oncology Social Workers Report “Uncertain” and “Unknown” Cancers Significantly Increase Patient Distress**

### **-- Survey of AOSW Members Highlights Need for Resources, Education, Better Diagnostic Tools to Reduce Psychological Impact of Unknown Cancer Diagnoses --**

**SAVANNAH, Ga, May 6, 2009** – Cancer patients whose primary cancer type is “uncertain” or “unknown” may experience more distress than patients whose primary cancer is definitively diagnosed, according to a recent survey of 140 oncology social workers. bioTheranostics, a company specializing in molecular diagnostics for oncology, conducted the “CUP Patient Experiences” survey among members of the Association of Oncology Social Work (AOSW). The purpose of the survey, results of which will be presented today at the AOSW 2009 conference, was to better understand the psychosocial impact of a “cancer of unknown primary origin” diagnosis.

Cancer of unknown primary origin, or CUP, is among the 10 most common malignancies in the developed world, affecting about three to five percent of all cancer patients<sup>[1],[2]</sup> -- the equivalent of 30,000-50,000 new cases each year in the United States alone.<sup>[3]</sup> Given that the origin of a tumor significantly impacts physicians’ therapeutic decisions as well as patients’ prognoses, the inability to diagnose patients’ primary cancers makes it more difficult for physicians to determine optimal treatment plans.

“By and large, the social and psychological impact of CUP is not well defined nor well understood in the oncology community,” said Les Gallo Silver, ACSW, AOSW president. “As a national organization whose members are key components of the cancer care team, we felt it is important to raise awareness of the psychological impact this diagnosis has on patients so that our members, as well as other oncology professionals, can better recognize and address CUP patients’ unique needs.

“Given issues related to poor prognoses, CUP patients struggle with the psychological impact of being different and singular in ways that are perceived as dangerous and life-threatening,” Gallo Silver continued. “We are committed to helping and advocating for CUP patients so that they can benefit from the therapeutic standards of care and support services that already exist for many defined cancers. Findings from this survey support oncology professionals’ exploration of means to reduce the number of patients whose cancer remains uncertain or unknown.”

According to the oncology social workers (OSWs) from across the United States who responded to the survey:

- Relative to the distress experienced by patients who have been diagnosed with a specific type of cancer, 39 percent of OSWs felt that a CUP diagnosis is significantly more distressing/extremely distressing and 42 percent felt it is more distressing.
- OSWs believe the three greatest challenges faced by patients diagnosed with CUP are “general fear associated with battling something unknown” (38 percent), “lack of a definitive best therapy for them” (37.3 percent) and “frustration and/or anger that their cancer can’t be identified” (21.1 percent).
- OSWs need more resources for their CUP patients. Specifically, the OSWs who participated in the survey noted that it is difficult to find other CUP patients and disease-specific organizations with which to connect their CUP patients for support and information.
- Finally, 34 percent of OSWs said they felt their initial training left them only “minimally prepared” to address the distress experienced by patients who lack a definitive cancer diagnosis. Thirty-one percent reported they felt “moderately prepared.” Only 2.1 percent said they felt “very well prepared”.

“It is clear that CUP causes significant distress beyond even that associated with a defined cancer diagnosis,” said Mark Erlander, chief scientific officer, bioTheranostics. “The oncology community needs to create resources and support services specific to CUP patients’ needs. In parallel, a more direct, cost-effective and robust solution to the clinical and psychological impact of this disease is to drastically reduce the number of cancers that remain ‘uncertain’ or ‘unknown’.”

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Traditional diagnostic methods often fail to diagnose hard-to-identify cancers, even after extensive work-ups that average nearly \$18,000.<sup>[4]</sup> Recently, molecular diagnostic tools have demonstrated the capacity to more accurately predict the origin of tumors, thereby helping to reduce the number of cancers that remain “unknown” and guide treatment decisions.

Molecular diagnostic tests analyze the molecular “signature” of individual tumor cells and compare them to the signatures of known tumors to find genomic patterns of similarity. This results in the ability to diagnose uncertain and unknown cancers with a much higher degree of accuracy than conventional technologies. bioTheranostics’ THEROS CancerTYPE ID<sup>®</sup>, for example, has a demonstrated overall success rate of 86 percent for classification of 39 different tumor types and 64 sub-types.

AOSW will publish the results of the CUP survey on their Website in order to raise awareness of the particular difficulties CUP presents to patients.

### **About the Association of Oncology Social Work**

The Association of Oncology Social Work (AOSW) is a non-profit, international, 501(c) 3 organization dedicated to the enhancement of psychosocial services to people with cancer and their families. Created in 1984 by social workers interested in oncology and by existing national cancer organizations, AOSW has over 1000 current members who embrace the AOSW Mission “to advance excellence in the psychosocial care of persons with cancer, their families, and caregivers through networking, education, advocacy, research and resource development.” <http://www.aosw.org/>

### **About bioTheranostics**

bioTheranostics discovers, develops and commercializes molecular diagnostic tests for cancer patients. Leveraging its unique expertise in genomic profiling and proprietary algorithms, bioTheranostics provides innovative tests to the oncology community that help drive personalized treatment. The company operates a CLIA-certified, CAP-accredited diagnostic service laboratory in San Diego, CA to perform its proprietary molecular diagnostic tests: THEROS CancerTYPE ID<sup>®</sup>, a molecular cancer classifier particularly helpful for patients diagnosed with primary or metastatic cancer where the origin is uncertain or unknown; and the THEROS Breast Cancer Index<sup>SM</sup>, a combination of THEROS H/I<sup>SM</sup> (HOXB13 :IL17BR) and THEROS MGI<sup>SM</sup> (Molecular Grade Index) that refines and improves risk stratification in patients with estrogen receptor (ER)-positive, lymph-node negative breast cancer. More information is available at [www.bioTheranostics.com](http://www.bioTheranostics.com).

<sup>[1]</sup> N. Pavlidis, E. Briasoulis, J. Hainsworth, F.A. Greco. Diagnostic and therapeutic management of cancer of an unknown primary. *Euro J of Cancer*. 2003; 39:1990–2005.

<sup>2</sup> Varadhachary GR, Abbruzzese JL, Lenzi R. Diagnostic strategies for unknown primary cancer. *Cancer*. 2004;100:1776–1785.

<sup>3</sup> S. Becker, Identifying Tumors of Uncertain Origin. *Ad for Admin Lab*. 2008;15:58.

<sup>4</sup> D. V. Schapira and A. R. Jarrett. The need to consider survival, outcome, and expense when evaluating and treating patients with unknown primary carcinoma. *Arch Int Med*. 1995; 155.