

HUTCH NEWS

Two Center scientists receive new investigator awards

Bielas, Mostaghel secure three-year funding for prostate-cancer research

Dec. 7, 2009 | By Colleen Steelquist

Drs. Elahe Mostaghel and Jason Bielas recently received New Investigator Awards from the Department of Defense's Prostate Cancer Research Program.

Bielas, an investigator in the Public Health Sciences Division, will use his three-year, \$365,000 grant to develop a blood-based, non-invasive screening test to diagnose prostate cancer and determine its stage by monitoring the prevalence of tumor-associated mitochondrial DNA mutations at very precise levels. Currently, suspected prostate cancer is typically confirmed by taking a biopsy of the prostate and further tests like CT and bone scans are used to determine whether prostate cancer has spread. Bielas hopes the new markers will be predictive of the biological behavior of prostate tumors, which would guide the type and aggressiveness of therapy used. He believes his findings could be applied to other cancers.



Dr. Jason Bielas
Public Health
Sciences Division



Dr. Elahe
Mostaghel Human
Biology Division

The Human Biology Division's Mostaghel received total funding of \$225,000 for three years. She will evaluate how prostate tumor cells respond to treatment that targets the production of testosterone not only in the blood, but in the tumor itself, by using new drugs under development that can block the testosterone synthesis machinery inside the tumor cells. Mostaghel will compare tumor response to currently available prostate cancer drugs versus a new powerful drug, VN-124.

"While we predict tumor cells will respond better to VN-124, the real goal is to understand the biology of the prostate cancer cell as it develops resistance to therapy," Mostaghel said. "Ideally, hormonal therapy would completely eliminate or cure the prostate cancer cell. However, it is more likely that over time, the tumor cells will develop resistance mechanisms which may be different from currently understood pathways of resistance." This understanding, she said, will help identify the relevant molecular pathways to target in the future.

Since its inception in 1997, the Prostate Cancer Research Program has received \$890 million in congressional appropriations and remains the world's second-largest funding agent of extramural prostate cancer research. The program uses innovative approaches, including input from consumer advocates, to funnel these funds directly into innovative research to accelerate discovery, translate discoveries into clinical practice, and improve the quality of care for men with prostate cancer.

TAGS: cancer blood test, cancer research, Elahe Mostaghel, fred hutchinson cancer research center, hormone therapy, Human Biology, Jason Bielas, noninvasive screening, Prostate Cancer, Public Health Sciences, testosterone

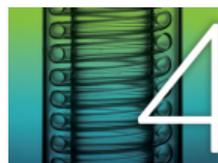
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