



Sylvester Awarded \$2 Million in Funding for Firefighter Cancer Research

Sylvester Comprehensive Cancer Center's Firefighter Cancer Initiative (FCI) received \$2 million in funding from the state of Florida to continue pursuing its mission to reduce cancer risk among firefighters. To commemorate the occasion, FCI hosted a check presentation on July 22 at Sylvester to showcase what the initiative has accomplished in the past year. Attendees included FCI leadership, firefighters, and state senator Ileana Garcia, who sponsored the appropriation in the senate.

Erin N. Kobetz, Ph.D., M.P.H., Sylvester's associate director for population science and cancer disparities, and FCI's principal investigator, led the opening remarks, expressing gratitude for Sen. Garcia's two-year involvement in securing funding for the FCI and highlighting the initiative's outreach.



(From left) Sen. Ileana Garcia; Alberto Caban-Martinez, D.O., Ph.D., M.P.H., C.P.H., deputy director of the FCI; and Natasha Schaefer Solle, Ph.D., RN, FCI co-deputy director

"We feel fortunate that we are in year eight of the FCI," Dr. Kobetz said. "The work we've done together has set an international standard for the importance of citizen-driven science, where firefighters work alongside those in academics to help inform what kind of questions we ask, so that they are meaningful, translate to change, and most importantly, save lives."

Addressing the gathering, Sen. Garcia emphasized that for her, this is not only a worthy cause to support but also a personal one, as her sister has been diagnosed with breast cancer.

"It's an honor for me to carry this torch," Sen. Garcia said. "What you do as first responders is a selfless act that says a lot about you and what you do in getting through this horrific predicament of cancer. It is an honor for me to do this for you, and to give back to a neighborhood I am proud of."



Culture Change

FCI is entering its eighth year of operations and continues to make great strides in research, outreach, and funding. The 2021-2022 cycle saw 7,000 volunteer and career firefighters and 6,500 COVID-19 first responders engage with the program.

More than 500 firefighters have participated in cancer screenings through clinical research, and 7,500 have been assessed for their cancer-screening behaviors. With the profession having recently been reclassified as a Group 1 carcinogenic career, firefighter stations across Florida are taking stricter approaches to health and safety, emphasizing checkups and updated gear storage techniques in an effort to change the culture.



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"As I look back at my 30-year career, it's amazing to see how much better we are now than 'back in the day' because of this project and our efforts," said Paul Blake, a retired



lieutenant firefighter from the Miami-Dade Fire Rescue Department (MDFR) who has battled skin melanoma, a brain tumor, and lung lesions. "Firefighters have been reluctant to take care of their health, but UM has made it simple to get ourselves looked at and checked, which is critical."

"I remember Paul saying that in order to receive traffic, you have to build bridges," added Willie Williams, division chief of health and safety for MDFR. "I can see all the bridges being built as we come together as a unit. Firefighting is not only about fire; we are truly, in all hazards, constantly exposed to so many factors that can cause cancer, such as collapses, leakage, and fire. This initiative is pushing us in the right direction, which is prolonging our lives."

Continuing the Work

FCI will use more than half of the \$2 million funding on cutting edge research, developing and adapting technologies for characterizing carcinogenic compounds at the fire scene. FCI has adapted and applied silicone-based wristbands in the firefighter work environment that provide unique insight into the type and approximate concentration of the various carcinogens encountered by first responders.



Sen. Garcia with Johanna Garibaldi, B.S.N., RN, EMT-P, in the FCI Mobile Clinic

"These wristbands have been deployed in regular fire incident response, training exercises, and most recently during prescribed wildland firefighter burns – giving our research team, for the first time, a glimpse into the carcinogens encountered by first responders," said Alberto Caban-Martinez, D.O., Ph.D., M.P.H., C.P.H., deputy director of the FCI.

Other implementations will be the development of a cadre of real-time gas sensors to detect and provide near-instant information on the types of gas and potentially harmful and carcinogenic compounds in the firefighter environment. The FCI will continue to study biomarkers of exposures in firefighter to gain insight into how carcinogenic exposures impact cancer risk. For example, by analyzing firefighters' toenail clippings, researchers can identify heavy metal exposures picked up at fire incidence response months since the firefighter left the fire scene.

"The funding allows us to continue doing groundbreaking research, education, clinical outreach, and advocacy work,"



Dr. Kobetz said. "The groups we work with bring their energy and commitment, which allows this program to continue to realize our goals of fewer firefighters dying of cancer, new therapeutic targets, and widespread recognition in the fire service that even though the field increases the risk of cancer, there is something we can do to change that."

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