

Mayo Clinic Sesquicentennial

Title: Cancer, Choline C 11 and the Representative Date: February 2014

Intro: One of the sneaky things about cancer, even when you think you have it beat, is the way it can reappear undetected in a few isolated cells to begin its assault on our bodies again. Alaska State Senator Mike Hawker had that concern after his life or death battle with prostate cancer. But, in late 2012, Mayo Clinic became the first U.S. medical facility granted FDA approval to use a new cancer marker, called C-11choline, to make those stealthy cancer cells light up. In their own words, here is Mike and the Mayo Clinic researcher who made this medical breakthrough possible.

Video

Audio

<p>Total running time [2:24]</p> <p>Mike Hawker State Legislator, Alaska</p> <p>(Call to action) For more info on Mayo Clinic’s early detection system for recurrent prostate cancer, click here:</p> <p>http://www.mayo.edu/research/discoverys-edge/early-warning-system-recurrent-prostate-cancer</p>	<p>“I’m one of those guys that probably didn’t see a doctor for 25 or 30 years until I woke up one morning with cancer.</p> <p>In 2008 I started having what we just thought was the enlarged prostate problems.</p> <p>All of a sudden in June of 2010, went into the doctor and my prostate had just erupted.</p> <p>My experience at the Mayo Clinic and specifically with Dr. Eugene Kwon has given me back a second chance at life.</p> <p>When I got here, I had but three or four weeks left to live and right now I’ve got a long horizon again and I’m living every minute to the fullest.”</p>
<p>/// NATS C-11 manufacturing</p> <p>Dr. Eugene Kwon Mayo Clinic Cancer Center Researcher</p> <p>Onscreen graphic: C-11 choline is a radioactive marker for cancer cells.</p> <p>Onscreen graphic: Because C-11choline’s half-life is only about 20 minutes, it must be produced on-site.</p>	<p>/// NATS C-11 manufacturing</p> <p>“Basically the cyclotron creates isotopes and then the C-11 isotopes are sifted out, purified and then attached to a choline molecule.</p> <p>Now, a choline molecule is just a -- it’s a nutritional agent.</p> <p>And the weird thing is that for whatever reason, prostate cancer loves to eat choline. So there’s a very rapid and a high uptake of choline by prostate tumors.</p> <p>And so by placing the C-11 onto the choline, it now can be seen by a positron device.</p> <p>It helps you hunt down this otherwise invisible cancer.</p> <p>So instead of waiting around for</p>

	<p>months and losing time, I think that we can make very rapid assessments in terms of how effective or ineffective a treatment is.</p> <p>C-11 PET scanner in one fell swoop has changed how we can interpret treatments, how we can assign treatments, how we can assess combinations of treatments.</p>
<p>Mike Hawker State Legislator, Alaska</p> <p><u>(annotation)</u> To read more about Mike Hawker's story, click here: http://www.mayoclinic.org/giving-to-mayo-clinic/life-changing-gifts/new-hope</p>	<p>“Now, I’ve still got cancer and I will be fighting it for the rest of my life. But, I’ve lived 3 of the best years of my life with the care of the Mayo.</p> <p>And that’s what the C-11 machine is all about. It’s this very innovative technology that allows us to very precisely identify the emergence of very, very small locations of cancer. By being able to identify those early we’re able to attack them. We’re able to kill them in one way or another and we’re able to keep it from growing.</p> <p>So you’ve got a much greater opportunity for success. You’ve got a much lower cost of treatment. It’s a win-win for everyone.”</p>
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Dr. Eugene Kwon helped develop the use of C-11 choline during Positron Emission Tomography (PET) scans. He personally presented his research findings to the Food and Drug Administration (FDA), ultimately winning approval to begin using the technology at Mayo Clinic.