CLAVES PARA LA CORRECCIÓN

TAREA 1

6 ítems × 2 puntos  ►  12 PUNTOS

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TAREA 2

10 ítems × 1 punto  ►  10 PUNTOS

1. BACKYARD / POOLS / SPAS  ►  3p.
2. BATHTUBS  ►  1p.
3. TYPICALLY  ►  1p.
4. FATALITIES  ►  1p.
5. CLEANING UP  ►  2p.
6. TOP HEAVY  ►  2p.
Welcome to the Science Update podcast. I'm Bob Hirschon and this is the podcast for August 29th 2008. This week we are going to tell you about new developments in the fight against cancer. But first Susanne’s got a story about a new treatment for leukaemia that comes from a very surprising source.

SUSANNE: So there’s a narcotic pain reliever called methadone. It’s claimed to fame to help people kick their addictions to opiate drugs. It does this by binding to the same receptors in the body without producing a high. Now researchers in Germany have discovered that methadone also binds to receptors on leukaemia cells. She also says that lots of leukaemia cells are resistant to both chemotherapy and radiation. But it turns out that methadone kills these resistant cells too. Friesen thinks the drug could eventually be used in conjunction with conventional therapies to treat the disease. She says further testing would also reveal whether it could be effective against other cancers as well.

BOB HIRSHON: Thanks Susanne. Well surgeons rely on their eyes. But during cancer surgery, it can be difficult for them to spot exactly where the tumor ends and healthy tissue begins. Now researchers have developed a way to light up tumors, making surgery much more accurate. John V. Frangioni is a medical oncologist at Harvard Medical School and in Boston. His team injects chemicals called near-infrared fluorophores into tissue surrounding the tumor. The researchers then shine an invisible infrared light onto the surgical field to excite the fluorophores.

JOHN V. FRANGIONI (Harvard Medical School): And in order to see those, we have our special camera that sits above two feet above the patient, and we’re able to see any structure that we need to see on the surgical field.

BOB HIRSHON: Frangioni thinks the technique could revolutionise cancer surgery and could be used in the treatment of other diseases as well. Next Susanne sniffed out and exciting new research on the front lines of the battle against skin cancer.

SUSANNE: Dogs have a much more sensitive sense of smell than we do. And on a previous Science Update, we told you how dogs can detect cancer with their noses. Well that has inspired new technology that tests for skin cancer based on odorants given off by the skin. Analytical chemist Michelle Gallagher and her colleagues collected these chemicals and analyzed them using an instrument called a gas mass spectrometer. Then they compared the concentrations of these chemicals in healthy subjects to those of people with skin cancer.

MICHELLE GALLAGHER: We found that there were two compounds in particular that varied in concentration when compared to the healthy subjects. One increased and one decreased in concentration.

SUSANNE: She says analyzing odorant concentrations could one day become part of routine skin cancer screening at your doctor’s office.

BOB HIRSHON: Thanks for that report Susanne. I’m Bob Hirshon, for AAAS, the Science Society.