

THE PIPELINE

Produced by: The Allyn & Betty Taylor Library

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LIBRARY HOURS

Monday - Thursday
8:30 am – 11:30 pm

Friday
8:30 am – 9:30 pm

Saturday
Academic Study Hall
11:00am – 5:30pm

Sunday
11:00 am – 9:30 pm

SERVICE DESK HOURS

Monday-Friday 8:30am - 6:00pm

Sunday 11:00am - 5:30pm

RESEARCH HELP

Monday-Friday 11:00pm - 5:00pm

Or contact tayref@uwo.ca anytime!

Crazy Research

Musical Chills

Salimpoor, V.N. *et al.* (2011). Anatomically distinct dopamine release during anticipation and experience of peak emotion to music. *Nature Neuroscience*, doi:10.1038/nn.2726

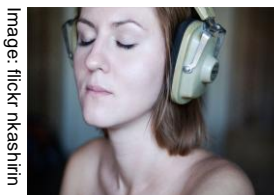
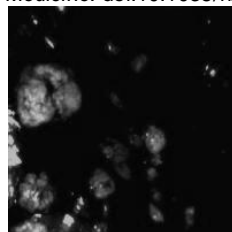


Image: flickr nkashin

Until recently dopamine, a neurotransmitter in the brain, has only been associated with tangible pleasures, such as food, sex, and drugs, but a new study suggests that perhaps it can also be associated with something intangible, specifically music. Scientists at McGill University measured “chilled” responses in people such as changes in skin conductance, heart rate, breathing and temperature, and found a correlation with the pleasure ratings of the music. Using a combination of PET and fMRI brain imaging techniques, it was revealed that dopamine release is greater for pleasurable music rather than neutral music, and even the anticipation of pleasurable music induced a dopamine release. This is thought to be the first demonstration of an abstract reward such as music leading to a dopamine release, and explains why music is so significant to society.

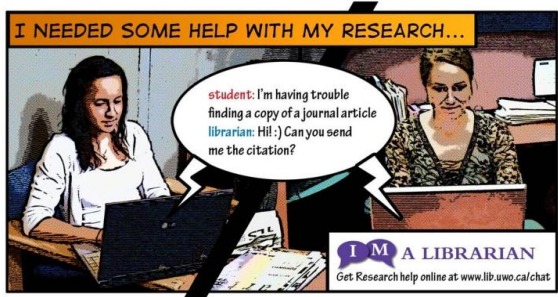
Glowing Cancer Cells

van Dam, G. M. *et al.* (2011). Intraoperative tumor-specific fluorescence imaging in ovarian cancer by folate receptor- α targeting: first in-human results. *Nature Medicine*. doi:10.1038/nm.2472.



Malignant tumors in the ovaries may be removed with greater accuracy due to the new development of fluorescence-guided surgery. Most ovarian cancer cells have a high number of receptors for the molecule folate (folic acid). Study leader Vasilis Ntziachristos of the Technical University of Munich in Germany and colleagues attached folate to the fluorescent molecule fluorescein isothiocyanate, creating a cancer-cell probe. After injecting this into patients and using a special camera and light, the labeled cells glowed white. Surgeons were able to spot cancerous tissues from those that would otherwise be indistinguishable; some tumors were less than one millimeter in size. This new technique is very promising as it gives post-operative chemotherapy the best possible chance to kill remaining cancer cells.

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