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## Fishing out a cure for cancer

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Jonathan B Weitzman

Email: jonathanweitzman@hotmail.com

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The zebrafish (*Danio rerio*) is a potentially exquisite model system with which to investigate the genetic basis of cancer. But it has proved difficult to create stable transgenic lines of tumor-bearing fish. In the February 7 *Science* Langenau *et al.* report the generation of a zebrafish model of T-cell leukaemia that highlights the potential of using fish to find cures for cancer (*Science* 2003, **299**:887-890). They created transgenic zebrafish expressing the mouse *c-myc* oncogene, or a fluorescent *GFP-Myc* fusion, under the control of the zebrafish *Rag2* promoter. The fish developed tumors by the age of seven weeks. The fluorescence of GFP allowed monitoring of tumor formation and spread in the translucent fish. The clonal T-cell leukemias first appeared in the thymus and then spread to gills, fins and retro-orbital soft tissue. Langenau *et al.* also demonstrated the transplantability of the *Myc*-induced leukemias and found that the olfactory bulb is a preferred site for T-cell homing. The authors propose that the zebrafish cancer model offers promise for 'forward-genetics' screens to find modifier mutations and tumor suppressor genes, as well as large-scale drug screens for anti-cancer agents.

## References

1. Zebrafish as a cancer model system.
2. *Science*, [<http://www.sciencemag.org>]
3. c-MYC: more than just a matter of life and death.